

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—MR. RUSSELL'S "CAUSAL THEORY OF PERCEPTION".

By M. H. A. NEWMAN.

THE twentieth chapter of the *Analysis of Matter*¹ contains a theory of our knowledge of the unperceived parts of nature, called "the causal theory of perception," which is the foundation of the system of the world set out in the rest of the book. In the present paper² the view is put forward that this theory requires modification if it is to be capable of sustaining the theory of the material world that Mr. Russell wishes to derive from it.

§ 1.

The subject of the *Analysis of Matter* is the investigation of the philosophical outcome of modern physics. The question that naturally arises at the outset—whether physics has a philosophical outcome, or whether there is not just physics—is closely connected with the main problem of our knowledge of the external world. It may be put more precisely as follows.

The only data for the formation of physical theories, and the only material for testing them, are supplied by our own experience: everything else is at best an inference. Even the testimony of other people is only a certain mass of sensations, interpreted by analogies drawn from the movements of our own bodies. It may therefore be held that a physical theory is simply the set of all predictions about our own sensations

¹ *The Analysis of Matter*, by Bertrand Russell, F.R.S., London, 1927.

² Read before the Cambridge Moral Science Club, December, 1927.

derivable from it: that the theory that the moon moves round the earth is simply a concise way of saying that I shall see the moon if I station myself in a certain spot to-morrow night, that some one will tell me he saw it, and all other predictions of this sort. The view held probably by most scientists at the present day is that it is their duty as scientists to see that their theories are expressible without reference to anything that cannot be observed, and in particular that inferences from one set of observable phenomena to another are not made by way of properties of postulated unobservable entities. This principle (the deliberate application of which has quite recently had far-reaching effects on physical science) is simply the principle that a proof that does not use unnecessary hypotheses is better than one that does. It does not in the least imply that there *is* nothing but our experience. When the province of the physicist has been marked off there still remains the important question whether in fact predictions about our own sensations exhaust all that can be said about the world, or whether there are other external entities which are the sources of our sensations; and if it is held that these entities exist there is the further question, what can significantly be said about them.

There are three main positions on this question; solipsism, the belief that only my own percepts and feelings exist; phenomenalism, which admits other people's mental states, but not events perceived by no one (not to be confused with the phenomenalist *method* in physics, referred to above); and the view, most akin to that of common sense, that the unperceived parts of nature spoken of in physical theories have a real existence. Mr. Russell sets out the arguments against solipsism and phenomenalism with great lucidity in the chapter we are considering (though perhaps he underestimates the gulf between phenomenalism and the belief in an "external world"). For many people the principal ground for rejecting both solipsism and phenomenalism is perhaps simply this—that it is doubtful whether anyone was ever really able to believe either of them. The belief in other people and an external world are just as much *data*, part of our mental make-up, as sensations themselves. To convince a man that he does not believe in phenomenalism what is necessary is not so much deductive argument as an illustration that will remind him what he is claiming to believe. There is no evidence, for example, that anyone was present to witness the formation of the Solar System in the way that has been deduced by Prof. Jeans from clues supplied by the stellar universe in its present state. If, then, the

phenomenalist view is adopted these clues, and the other materials by which the theory was successfully tested, must be supposed to be there merely to delude Prof. Jeans and his colleagues.

Having decided that there is, in some sense, an external world, Mr. Russell proceeds to his main task, which is to find what exactly that sense is. The result involves the notion of *structure*, or *relation-number*, which he has introduced into the philosophy of science to its very great advantage. Although it is now a familiar notion its place in the argument that follows is so fundamental, and its explanation so easy, that I shall venture to recall the definition.

For our purpose it is not necessary to define the single word "structure" but only what is meant by the *statement* that "two systems of relations have the same structure". Let a set, A, of objects be given, and a relation R which holds between certain subsets of A. Let B be a second set of objects, also provided with a relation S which holds between certain subsets of its members. The two systems are said to have the *same structure* if a (1, 1) correlation can be set up between the members of A and those of B such that if two members of A have the relation R their correlates have the relation S, and *vice versa*. For example A might be a random collection of people, and R the two-termed relation of being acquainted. A *map* of A can be made by making a dot on a piece of paper to represent each person, and joining with a line those pairs of dots which represent acquainted persons. Such a map is itself a system, B, having the same structure as A, the generating relation, S, in this case being "joined by a line". The important feature of the definition, brought out by the example, is that it is not at all necessary for the objects composing A and B, nor the relations R and S, to be qualitatively similar. In fact to discuss the structure of the system A it is only necessary to know the *incidence* of R; its intrinsic qualities are quite irrelevant.¹

¹ Among systems of *n*-termed relations those with the *structure* of an *n*-dimensional sphere, element, or other space can be distinguished. Consider, for example, the case of a *society* (2-termed relation, "acquaintance") consisting of four people A, B, C, D, in which A knows B, B knows C, C knows D, and D knows A, but the other two pairs are unacquainted. The structure may be mapped by four dots on a circle, neighbouring dots representing acquainted people. We may therefore say that such a society (or more generally any connected society of which every member knows precisely two others) has a *cyclical* structure. Now just as a system of two-termed relations, like being acquainted, has a 1-dimensional graph, *i.e.*, a map consisting of *lines*, a set of three-termed relations is represented by a 2-dimensional complex, every three related objects being represented by the vertices of a triangle belonging to the complex; and among these

A point to be emphasised is that it is meaningless to speak of the structure of a mere collection of things, not provided with a set of relations—*e.g.* of a set of dots not connected by any lines. Further, no important information about the aggregate A, except its cardinal number, is contained in the statement that *there exists* a system of relations, with A as field, whose structure is an assigned one. For given any aggregate A, a system of relations between its members can be found having any assigned structure compatible with the cardinal number of A. Thus the only important statements about structure are those concerned with the structure set up in A by a given, definite, relation.

Mr. Russell's analysis of our belief in the reality of the external world is based on the observed fact (which is also his main ground for rejecting phenomenalism) that if a number of people are together and, as we say, look from different directions at the same object their experiences are related in a particular way. The percepts of all these observers can be organised as part of a 3-dimensional manifold so that they lie about a centre, similar percepts being assigned neighbouring positions. In fact the percepts obey roughly what may be called the laws of perspective in the space in which they have been placed. The percepts do not of course fill up the space; there are only percepts here and there, where there happens to be a percipient. According to phenomenalism these are all that really exist, but Mr. Russell is exploring the opposite view, that it cannot be regarded as fortuitous that the percepts form part of a centrally organised structure: the rest of the constituents of the system are also real, although they cannot be perceived. Mr. Russell's statement of his fundamental assumption is as follows:¹

Confining ourselves, to begin with, to the percepts of various observers, we can form groups of percepts connected approximately, though not exactly, by laws which may be called laws of "perspective". By means of these laws, together with the changes in our other percepts

systems those with *spherical* structure can be distinguished, just as *cyclical* structure could be distinguished for systems of 2-termed relations. I mention these facts to make it clear that to say that a system has, for example, spherical structure, whether 2 or 4-dimensional, does not presuppose the location of the system in a space- or space-time continuum. It is a purely logical property of the system itself.

Such properties of systems of relations have been the subject of mathematical researches for about twenty years, under the name of Combinatory Topology.

¹ P. 216.

which are connected with the perception of bodily movement, we can form the conception of a space in which percipients are situated, and we find that in this space all the percepts belonging to one group (*i.e.*, of the same physical object from the standpoint of common sense) can be ordered about a centre, which we take to be the place where the physical object in question *is*. . . . The essential assumption for what is commonly called the causal theory is, that the group of percepts can be enlarged by the addition of other events, ranged in the same space about the same centre, and connected both with each other and with the group of percepts by laws which include the laws of perspective.

What is being asserted may perhaps be made clear by the following analogy. Suppose that a large white screen were discovered, and it was found by experimenting on small portions of it, that a red pattern emerged under suitable treatment. If the developed parts of the pattern seemed to fit naturally into a simple scheme covering the whole screen—for example, to be parts of a system of concentric circles—and if there was no reason to doubt that the developed parts were random samples, it would be reasonable to infer—even if for some reason the rest of the screen could not be treated—that there was in fact a set of complete concentric circles incorporated in the fabric of the screen, which would become visible if properly developed. In this analogy the developed parts of the circles correspond to our percepts, the inferred parts to the postulated unperceived events, which make up the full group which *is* the physical object.

It will be noticed that in Mr. Russell's statement a space is to be postulated or constructed in which the percepts are situated, instead of simply asserting the structure itself to be that of a 3-dimensional manifold in the sense roughly indicated in a preceding footnote. Even if a more elaborate theory of space-time is to be constructed later I think this form of the statement is preferable here: Mr. Russell has perhaps at this point overlooked the power of his own instrument. However, this is a minor point, and may in any case be a verbal misunderstanding.

The existence of unperceived events having thus been assumed we turn to the question: What can be known about these events? The answer given by Mr. Russell is most clearly set out in the following passage:—

. . . I wish to examine now . . . how much we can know about unperceived events, assuming the causal

theory of perception. It is sometimes urged that an unperceived cause of a perception must be a mere *Ding an sich* or Spencerian Unknowable. This seems to me only very partially true, if we accept the usual canons of scientific inference. We assume that differences in percepts imply differences in stimuli—*i.e.* if a person hears two sounds at once, or sees two colours at once, two physically different stimuli have reached his ear or his eye. This principle, together with spatio-temporal continuity, suffices to give a great deal of knowledge as to the *structure* of stimuli. Their intrinsic characters, it is true, must remain unknown; but we may assume that the stimuli causing us to hear notes of different pitches form a series in respect of some character which corresponds causally with pitch, and we may make similar assumptions in regard to colour or any other character of sensations which is capable of serial arrangement.

. . . Except when we are studying physiology or psychology, we may suppose that what is happening in a place is what a person would perceive in that place, provided we use in inference only those properties of the percept which it shares with the stimulus. . . . Nothing in physical science ever depends on the actual qualities. (pp. 226, 227.)

Briefly: of the external world we know its structure and nothing more. We know, about things that are *not* percepts, the kind of things a blind man could be told about a picture, as opposed to the additional knowledge of intrinsic quality that we have of percepts.

This differentiation between the two sorts of knowledge is very attractive. It overcomes the difficulty about knowing what is by nature unknowable, for it admits that we can know nothing of quality, while *structure* can be inferred from such plausible assumptions as that the stimulus must be at least as complicated as the percept,¹ or that a certain similarity exists between cause and effect when both are complex,² or that other assumption that has already been used, the reality of the remaining members of the centralised groups (physical objects) into which certain sets of percepts fit. The meaning of the distinction is quite clear owing to the precision of the definition of "structure," and it does seem, on reflection, that this is the kind of significance to be attached to our belief in an outside world. We believe that something is going on in the same sort of way when we are not there. A powerful

¹ Cf. p. 340.

² P. 249.

instrument is also provided for the interpretation of all that is significant in our beliefs about unperceived events—including a number of questions which modern scepticism might be inclined to pronounce meaningless.

Of such questions that of the *existence of atoms* provides a good example, for on the one hand an atom can certainly never be perceived—it cannot be defined on the same lines as a physical object by means of its “aspects,” for it has none; on the other hand the evidence for what is ordinarily called its existence is as strong as for any one piece of scientific theory. It was amassed largely before the rise of the quantum theory, and has been unaffected by the storms that have since swept over physics. Mr. Russell says a good deal about the *structure* of atoms, but does not touch this simpler question. We wish to know whether any significance can be given to the statement that “matter consists of atoms,” and if so whether it is true. I think the meaning is something like this: A system of related things may fall into a number of groups in such a way that a very good idea of the structure is obtained by first considering the structure of each group separately and then the structure of the whole set when these groups are considered as individuals. For example, the collection of passages, halls, and tubes forming the Underground Railways of London, with their stations, is a system whose complete structure would be best indicated by giving the design of each station separately, and then a map of the kind that one sees about London, on which each station appears as a single dot. This property of the Underground Railways might be expressed by saying that “it consists of atoms,” namely the stations. (The allusion is of course to the current physical use of the word, not to its derivation. Mr. Russell would say the second kind of map is *semi-similar* to the railway.) The property is evidently a purely structural one, and although, as with all important properties, there is no sharp dividing line between systems which have it and systems which have not, that does not destroy its utility. The question of the atomicity of matter is the question whether that part of the world where we say matter is located has an atomic structure in this sense. I believe this is a real question, to be answered by consideration of the evidence, not a matter of definition; and I should say the answer is in the affirmative.

Mr. Russell himself uses his apparatus to analyse some of the fundamental notions of physics in a somewhat similar way, though he is concerned in the first place with more primitive keywords—physical object, percipient, matter and so on.

§ 2.

In spite of the many advantages of Mr. Russell's division of knowledge I do not think it can be upheld in the form he gives it unless we are prepared to return to the view that really there is nothing of importance that can be said about the external world.

The trouble is the view that *nothing* but the structure of the external world is known. As it is important to make sure of Mr. Russell's views on this point I will quote two further passages.

Thus it would seem that wherever we infer from perceptions it is only structure that we can validly infer; and structure is what can be expressed by mathematical logic (p. 254).

The only legitimate attitude about the physical world seems to be one of complete agnosticism as regards all but its mathematical properties (last line of p. 270).

And I will recall a sentence already quoted :

We may assume that the stimuli causing us to hear notes of different pitches form a series in respect of *some character* which corresponds causally with pitch.

These statements can only mean, I think, that our knowledge of the external world takes this form: The world consists of objects, forming an aggregate whose structure with regard to a certain relation *R* is known, say *W*; but of the relation *R* nothing is known (or nothing need be assumed to be known) but its existence; that is, all we can say is, "*There is a relation R such that the structure of the external world with reference to R is W*". Now I have already pointed out that such a statement expresses only a trivial property of the world. Any collection of things can be organised so as to have the structure *W*, provided there are the right number of them. Hence the doctrine that *only* structure is known involves the doctrine that *nothing* can be known that is not logically deducible from the mere fact of existence, except ("theoretically") the number of constituting objects.

The generating relation of the structure of the world as conceived by Mr. Russell I take to be what he calls "causal continuity," *i.e.*, if we make a map in space, exhibiting the structure, the parts that are near each other in the map are those that represent events causally continuous with each other. But the introduction of this name does not help us, for if Mr. Russell's principles are to be upheld this statement must be merely the *definition* of causally continuous: if any-

thing were directly known about its nature we should know something not structural about the external world.

The only possibility of combating this objection seems to be to deny the truth of the proposition about relation-numbers on which it depends, namely that given an aggregate A , there exists a system of relations, with any assigned structure compatible with the cardinal number of A , having A as its field. This involves abandoning or restricting Mr. Russell's own definition of a relation, namely, the class of all sets (x_1, x_2, \dots, x_n) satisfying a given propositional function $\phi(x_1, x_2, \dots, x_n)$.¹ If this definition is retained our assertion is clearly true. For example if a, α, β, γ , are any four objects whatever, a relation which holds between a and α , a and β , and a and γ , but no other pairs is the set of all couples, x and y , satisfying the propositional function

$$x \text{ is } a, \text{ and } y \text{ is } \alpha \text{ or } \beta \text{ or } \gamma \quad (1)$$

It may, however, be held that "real" relations can be distinguished from "fictitious" ones; that the example just given is a fictitious one, while the generating relation of the structure of the world is real; and that there is *not* always a real relation having an assigned structure and a given field. Here "fictitious" has a well defined sense; it means that the relation is one whose only property is that it holds between the objects that it does hold between; *i.e.*, the propositional function defining it is of the type (1) above.

Now if an aggregate A consists of objects of which nothing is known but their existence (supposing such a statement to have a meaning) it cannot, I think, be shown that there is a system of "real" relations with the field A and structure W . Even the assigning of names in such an aggregate is difficult to justify. We cannot say "Let this be a and that b ," for there is no possible way of explaining the reference of "this" and "that". But it is not necessary for the present argument to contemplate aggregates about whose members nothing at all is known. The question we are considering is whether any information about the world is conveyed by the statement that it has the structure W with reference to some relation R between its events, where R is now restricted to

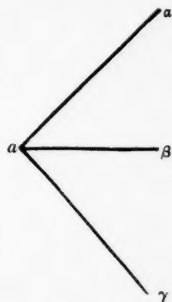


FIG. 1.

¹ There does not seem to be a definition of multiple-termed relations in *Principia Mathematica*: but there can be little doubt from the definition of a 2-termed relation (P. M., vol. i., *21.03), that the one given above represents Mr. Russell's views.

be "real"; and the answer is certainly negative if it can be shown that given any other logically possible structure, W' , there is also a system of real relations among the events with the structure W' . *We may assume, then, that at least one possible structure W is known*; and this provides the means of naming the events. For the "map" by which the structure W is specified must consist of identifiable, and therefore nameable, objects; and each event can be given the name of its correlate in the W -map. Having once assigned names to events, we can easily set up systems of relations with assigned structure, which though perhaps *trivial*, undoubtedly are not *fictitious* in the sense that was precisely defined above. An example will perhaps suffice. Suppose there were only four events, which with the help of the known structure W were given the names a, α, β, γ , and that the assigned structure W' is that set up by the "fictitious" relation (1) above (see Fig. 1). A "real" relation generating W' is "denoted by letters of different alphabets". A similar device can obviously be used whatever the number of events and the structure W' . The defence is therefore driven back from the fairly safe *fictitious-real* classification to the much less tenable "trivial" and "important"; for any further attempt to exclude undesired classes of relations by describing them one by one seems bound to fail.

There is a passage in Chapter I. of Mr. Russell's book, dealing with the interpretation of physics, in which the word "important" is discussed with a view to a somewhat similar application. It must be explained that Mr. Russell uses the word "physics" in a rather singular sense. The propositions which constitute our notion of the laws of nature themselves form a related system with a certain structure, the generating relation being in this case logical implication. It is this purely logical structure that Mr. Russell calls physics. The finding of objects for which the theorems are true is merely "interpretation". If there are such objects, physics (*i.e.*, presumably, physics according to the current beliefs of physicists) is true, if not it is false. There may, of course, be not only one but several sets of objects for which the abstract theorems are true. The one which is of interest for science is distinguished by Mr. Russell as the "important" one.

Usually, in such cases, although many different sets of objects are abstractly available as fulfilling the hypotheses, there is one such set which is much more important than the others. . . . The substitution of such a set for the undefined objects is "interpretation" . . .

The difference between an important and an unimportant interpretation may be made clear by the case of geometry. Any geometry, Euclidean or non-Euclidean, in which every point has co-ordinates which are real numbers, can be interpreted as applying to a system of sets of real numbers—*i.e.*, a point can be taken to *be* the series of its co-ordinates. This interpretation is legitimate, and is convenient when we are studying geometry as a branch of pure mathematics. But it is not the *important* interpretation. Geometry is important, unlike arithmetic and analysis, because it can be interpreted so as to be part of applied mathematics—in fact so as to be part of physics (p. 5).

I have quoted this passage because the problem of the "interpretation" of physics has an apparent similarity to the problem that has arisen concerning the external world. In the one case we have to distinguish between the aggregates in which systems of relations with a given structure hold, in the other between the systems of relations that hold among the members of a given aggregate. But Mr. Russell does not really in his case have to rely on a primitive idea, "importance," to distinguish one interpretation from another: a *criterion* is available in the fact that one interpretation involves our percepts and the others do not. In the present case we should have to compare the importance of relations of which nothing is known save their incidence (the same for all of them) in a certain aggregate. For this comparison there is no possible criterion, so that "importance" would have to be reckoned among the prime unanalysable qualities of the constituents of the world, which is, I think, absurd. The statement that there is an *important* relation which sets up the structure W among the unperceived events of the world cannot, then, be accepted as a true interpretation of our beliefs about these events, and it seems necessary to give up the "structure—quality" division of knowledge in its strict form.

There is one further point. The argument that has here been used against this division proceeds from a denial that there is a classification of relations (*e.g.*, into "trivial" and "important") with these properties:

(a) the classification is applicable to relations between unperceived events;

(b) if C is the class to which the generating relation of the world-structure W is held to belong, it cannot *be logically demonstrated* that there is another relation of the class C that generates an assigned structure W'.

But even if such a classification could be established a further

piece of justification of Mr. Russell's division would be necessary. Evidence would still be wanted to show that there are *in fact* structures *W* which are not set up by any relation of class *C*; for our experience of aggregates consisting of objects of known character would lead us to expect the reverse.

The conclusion that has been reached is that to maintain the view that something besides their existence can be known about the unperceived parts of the world it is necessary to admit direct apprehension of what is meant by the statement that two unperceived events are *causally adjoined*, *i.e.*, happen near each other, temporally and spatially, or overlap, or do something of the sort. The central doctrine is then that while of percepts we have a qualitative knowledge, of other events all that can legitimately be inferred is their structure with regard to a certain directly known relation which may be called "causal proximity".

The object of this paper is to show the necessity, on internal grounds, for modifying the "clear-cut" theory of which some account was given in § 1, not to discuss the evidence for or against the amended form. But certain parts of Mr. Russell's book (especially Part III.) suggest that in spite of the passages quoted at the beginning of this section it is really after all the modified theory, with a "directly known" generating relation, that he wishes to put forward. It must therefore be pointed out that in its second form the theory lacks many of the advantages of the clear-cut form. In particular Mr. Russell's claim to have avoided the difficulties of the "Spencerian unknowable," which confront every theory of the unperceived world at its outset, cannot be upheld. It is no longer beyond doubt that all the terms in the enunciation of the principle have a clear meaning; the relation of causal (or spatio-temporal) proximity is presumably only known to us in the first place from experience of "proximate" pairs of *percepts*, and from this a concept of proximity must be derived general enough to provide the material for a theory of the constitution of atoms. In this respect the theory is at a disadvantage when compared with phenomenalism, for there can be no doubt of the meaning of the statement that other people's percepts exist, since it refers only to entities of a kind we are acquainted with. On the other hand, a breach having once been made, it may be asked why other non-structural properties should not be "directly known": the way is open for an attack from the idealist side. It appears, then, that although a modified form of Mr. Russell's theory makes an important assertion about our knowledge of the external world, a good deal of further argument will be necessary to show that this assertion is true.

II.—INTERPRETATION OF WORDS.

BY ALFRED SIDGWICK.

I.

ONE of the problems that we often meet with is the doubtful application of a general rule to a particular fact in order to draw an inference from the fact and the rule taken together. A certain number of the general rules we use never raise this difficulty; for instance the rule that two and two make four, or the rule that any two sides of a triangle are greater than the third side. Even at a lower level than these a great many rules serve their purpose sufficiently well, and doubts about their application, though possible, are never allowed to trouble us; for instance the doubt whether the regularity of the sun's rising can be trusted for to-morrow. On the other hand there are also a number of general rules which, though they have some value, are hardly ever taken as infallible guides; proverbs are an obvious example, and any loosely conceived rules about what 'most people' do, or what conduct may be expected from members of this or that class of society. Such rules, known to be vague and full of exceptions, never mislead people of strong common sense. If and when we apply them in particular cases we do so tentatively and without any excessive certainty of drawing the right conclusion.

Between these extremes of certainty and uncertainty, however, we have all met with a considerable number of rules which mislead some intelligent people but not others, and which therefore raise respectable differences of opinion and lead to serious disputes. Looking broadly at disputes in general we see that the most lasting ones—those which are hardest to settle—arise through differences of opinion as to particular causes and their effects, and especially as to the part played by this or that cause in some particular sequence of events. I do not mean that all differences of opinion about causes lead of necessity to long disputes. Sometimes a convincing crucial test can be found to settle the matter. Or again an opponent's false opinion about a cause can occasionally be traced to some merely verbal confusion, and so

corrected. But nevertheless when a dispute does last a long time and is difficult to settle the source of its vitality and duration can usually be found in a difference of view about some particular piece of causation. Questions about the remoter origins of the Great War may serve as a familiar example.

Consider the normal course of these persistent and two-sided disputes. Essentially they consist of a search by each opponent for the real root of the other's obstinate error. We begin by making a guess at it, and if that proves wrong we try again with another guess; and so on until our patience and perseverance are exhausted. Everything that an opponent says helps us in correcting and improving our guesses, so long as the dispute continues. And if, as usually happens, neither side wins a triumphant victory, the process itself may be instructive to one or both of the parties.

Another fundamental fact about long disputes is that the points that are really at issue tend to become clearer as the discussion goes on. They emerge gradually out of a vague and confused objection to the opponent's view as we first imagine it. Disputes usually begin as crude lumps of disputable matter which can be broken up into smaller portions, and which must be so treated if we are to arrive anywhere or to make any progress towards agreement. One doubtful point is found to depend upon another which thus requires preliminary settlement, so that the more complex a difference of opinion is the more necessary becomes the process of 'picking holes' in order to see which parts of the questioned opinion will stand against criticism. Think of complicated questions such as the causes of the decline of the Roman Empire, the true character of the present industrial situation, or the future developments of Christianity. Nothing can be done with them until they are broken up into smaller issues which can be treated separately.

Now the smaller the issue—that is to say the more definite and restricted the point in dispute—the more clearly it is seen to turn upon (1) some question of fact, and (2) some question about the inference which may be drawn from that fact. And our causal knowledge, such as it is, plays a great part in determining our view of both these questions, and of the relation between them. Where there is no suggestion of a doubt about a fact, or of a doubt about the correct inference from it if the fact is admitted as true, causal considerations seldom interfere; but they become important precisely when either the nature of the fact itself or the inference it points to are thought to be too loosely or superficially conceived.

However nearly alike on the surface two facts may be, and however 'correct' on the whole it may be to call them by the same name, a difference in the way they were caused must have some effect on their characters; and this difference tends to be hidden by the identity of the name, which therefore tends to mislead us. For instance the names of various illnesses are often found by a doctor much less satisfactory than they appear to his patients. The doctor may still see a case of illness as coming under some rule, but it need not be the same rule that seems to the patient applicable. Any conflict of opinion about the precise nature of a fact which broadly deserves such and such a name turns upon some difference in the *causal* view of it taken by the two opponents; and in this way—since causes are regular—it turns upon the *rules* under which the fact is supposed to come. Thus it is that somewhere in the course of any long dispute we are sure to come upon a doubt about the application of a general rule to a particular case.

But even apart from long and complicated disputes the same doubt often arises. For instance a coroner's inquest may be found to turn upon some piece of medical evidence, and the jury are faced with the question whether the rule that medical evidence is trustworthy (within its own special field) is or is not applicable in the particular case of Dr. Jones on this occasion. And in many large enquiries—*e.g.*, in matters of arbitration, or in the facts brought before a Royal Commission—the general trustworthiness of experts, and the qualifications of this or that man to be called an expert, may be disputed. Such problems then become preliminary to any satisfactory settlement of the larger question. They block the way until we can make up our minds about them. The disputable rule about the credibility of experts is only one among thousands that are constantly raising doubts about the limits of their safe application.

It is not only facts that need to be seen in the light of causal knowledge. Rules are even more obviously dependent on it. Our knowledge of causes and effects is what helps us to imagine exceptions to the rules, and so to discriminate between the right and the wrong occasions of applying them. Any so-called 'empirical' rules—*i.e.*, rules in which we cannot directly trace the causal connexion—are reckoned doubtful just because of this lack of causal explanation. Though we often use them 'for what they are worth,' or as being better than no guide at all, we rate them low in the scale; lower even than proverbs for instance, since proverbs always make some appeal to our knowledge of causes. Whenever

a rule seems to us merely empirical we take it rather as a starting point for causal enquiry than as a satisfactory guide in its present condition. In the present state of knowledge, for instance, we might call it a merely empirical rule that wireless reception tends to fade when certain atmospheric conditions are present.

There is nothing surprising in the fact that we often disagree about causes, when one remembers how the notion of cause and effect dominates our observation of what is happening around us. All day long the whole population of the earth, at every level of intelligence, is engaged in noticing and interpreting facts, idly or otherwise, and with varying success. I do not mean that we never do anything else, but that so long as we are awake and conscious the process of observing facts and drawing inferences from them is intimately mixed with all our occupations. In our serious and our trivial pursuits alike we are all continually learning from experience of passing events, making guesses or theories about the causes in operation, trying to understand how the facts came to be as they are, and to foresee what they point to in the future. We can hardly help learning something from our successes and failures, and gradually we accumulate in this way a store of causal knowledge, mostly vague and always incomplete, which we use in interpreting any new facts we encounter.

Our stores of causal knowledge are therefore one of our chief instruments for drawing inferences from facts, and since no two people have exactly the same store, while the differences are often extremely wide, it is no wonder that we live in an atmosphere of disputed opinions and often find our controversies (and our own doubts) difficult to settle. Second-hand experience is what we chiefly start with, as children, in the form of general rules which we are told not to question. Our later experience partly confirms and partly modifies this foundation, so that at any period of life our minds are full of general rules regarded as applicable to particular cases either with or without discrimination—either blindly or with more or less need of closer enquiry into the circumstances. As we grow up we gradually become aware of a certain risk of misapplying useful rules, a risk of bringing this or that particular case under a rule that does not really cover it but has only a delusive appearance of doing so. The more we get to know of the intricacy of causes and effects in all that is happening around us, the more we learn to distrust short general formulas and to expect exceptions to them.

There is here no need to assume that all our inferences

from facts are drawn by consciously applying general rules to particular cases. Very often the process of inference is too complicated, and also too rapid and uncritical, to be thus simply conceived. What usually happens is that in observing a fact or set of facts we notice a number of details each of which plays some part in throwing light upon the situation, and the total combined meaning of them becomes more or less clear to us. When Robinson Crusoe noticed a row of footmarks in the sand we cannot suppose that he carefully formulated a rule and applied it in order to interpret the facts. Very often we jump to a right conclusion without troubling about the process. The inferences we draw from the play of the cards in a game are a familiar instance of judgments which are rapidly formed. We notice certain details, sum up their apparent meaning, and hope for the best. Still, every detail gets its meaning, for us, through the general rules under which it seems to us to come.

It is chiefly therefore where there is time for reflection, and where doubts have arisen, that we expressly refer to rules in support of an inference; and this is what naturally happens in long disputes. Though some of our simpler and less controversial inferences may proceed from general rule to particular case—inferences such as that from the lowering of a railway signal to the approach of our train—it is specially where an inference is doubted that we are led to look for a rule or rules which may justify it. And then the doubter has two lines of criticism open to him; he may find defects in the rule itself or in its application to the particular case.

Take again for instance the rule that expert evidence is trustworthy. The critic of an inference supported by this rule may object (1) that it is a rule with many exceptions, or (2) that Smith hardly deserves to be called an expert. The choice of these two modes of attack will usually be found to depend on the quality—the admitted *general* utility—of the rule. When a rule is carefully framed and widely accepted the critic will be less inclined to find fault with the rule as such than to challenge the right of the particular case to come under it. But this is, for logical purposes, an unimportant difference of treatment, since the two modes of attack are identical in effect; they both find the same fault with the inference as a whole, namely, lack of real connexion between the asserted rule and its asserted application in the particular case. The objection raised is that the supposed *link* has a false verbal appearance of connecting the case with the rule, and that therefore the argument fails.

Or again, consider legal arguments. Here we have rules in

the form of laws—rules which, until the law is changed, are supposed to allow of no exceptions. The actual framing and phrasing of an Act of Parliament has been done with a good deal of care, and yet it is quite common to find doubts raised about its application in particular cases. In spite of all the trouble taken in drafting the Act a certain vagueness is often discovered in it, an ambiguity which leads to disputes about what is a 'place' within the meaning of the Act, or what is a 'sardine,' and similar arguable points. Whatever the subject-matter, the argument from a rule and a case, taken together, requires the absence of any 'ambiguity' in the verbal link which connects them.

In the example about expert evidence the supposed link is the word 'expert,' a word which is obviously vague. If any fault is to be found with the conclusion that Smith's evidence can be trusted the vagueness of the word 'expert' is responsible for the error, and it clearly does not matter whether we blame its use in stating the rule or in making the application. If we regard the rule as having exceptions, then we complain that the vague word is used to cover both the trustworthy and the untrustworthy *kinds* (or degrees) of expertness; and if we doubt Smith's qualifications, then we complain that the vagueness of the word has allowed it to be stretched too far in attaching the name to him. We then agree perhaps that experts who really deserve that name are trustworthy, but we object that Smith is not one of them.

II.

So far we have only been noticing, by way of introduction, matters of common knowledge which are not likely to be disputed by anyone. We can all agree that the problem of judging the soundness of an inference from a rule and a case taken together does occasionally present a difficulty, and that when it does so it turns upon the question whether the supposed link between the rule and the case is a real link or has only a false *verbal* appearance of being so. When there is any indefiniteness in the statement of the rule, or in the statement of the fact supposed to come under it, there is room for the suspicion that the connexion between them is faulty; and when a critic of the inference raises this objection it will sometimes be worth answering as well as we can. What is required to make the answer satisfactory?

At this point we must begin to part company with matters of common knowledge or supposition. For it is commonly supposed that when a statement, either of a rule or a fact, is

admitted to be 'true' there is nothing further to be said against it. Any statement, it is assumed, must be either true or false, and before drawing inferences from it we must first decide which of these it is. So that when we have to consider an inference from a statement of a rule and a statement of a fact we have first to make these two enquiries, and we naturally make them one by one.

What is here commonly overlooked is that so long as the two enquiries are kept separate the further necessary question as to the reality of the supposed link is left entirely out of sight. So far, not even a beginning is made of the enquiry into it. In order to judge whether the supposed link is real or merely verbal we have to take the two statements together and interpret each in the other's context. Common sense, no doubt, often does instinctively make some allowance for this need, at least when the word forming the supposed link is well known to be indefinite. Our example about expert evidence may serve to illustrate this. Here the verbal link—the word 'expert'—is notoriously vague, and is therefore seen to be capable of different interpretations without departing from the ordinary customs of language. So that any sensible jurymen, asked to accept a person's evidence on the ground of his being a medical expert, would naturally see that the *degree* of expertness comes into the question. He would see that the doctor may 'truly' claim to be a medical expert, and yet be not quite expert enough to guarantee the truth of this particular inference; or on the other hand that experts, as such, may be 'truly' called trustworthy, but only when their expert quality is beyond all question. So far as the jurymen does recognise this he is judging the truth of the two statements not separately but by interpreting each in the light of their joint meaning.

This method of interpreting the pair of statements jointly instead of separately has in two ways an advantage over the old logical assumption that every separate 'proposition' must be either true or false as it stands. In the first place it allows us to draw satisfactory inferences, on occasion, from statements which are admittedly vague, and which might on that account be condemned by the pedant. For example, the line between old and young is admittedly vague, and to that extent the rule that old men had better not play football suffers from a corresponding vagueness; there may be doubts about its safe application to men of 25 or 30. But when it is applied to men of 40 or 50 these doubts no longer interfere with the inference. Take the rule strictly by itself—as a 'proposition' on its own account—and all we can say is that

it is true if applied with reasonable discretion but that it is liable to be false if applied as (*e.g.*) a schoolboy might naturally apply it. So the rule considered quite apart from its particular applications can neither be called true nor false. It needs *interpretation* with a view to some particular inference before it ceases to be ambiguous; and yet *some* inferences drawn from it may be taken as sufficiently sound.

This is a minor advantage, because needed only as against a pedantic demand for perfect definiteness in the terms we use. But in the second place our method helps us to guard against drawing faulty inferences from statements in which no indefiniteness is visible on the surface. Here it gives us an advantage over some more respectable kinds of reasoning. When one person sees the indefiniteness of a rule while another does not we get the typical case of a disputed inference where there may be plenty of excuse for the error. This trouble occurs, generally speaking, in proportion to the excellence and value of the rule—the rarity of its exceptions. With an obviously loose rule, as we have seen, common sense (and still more, science) draws its conclusions modestly and tentatively; but the better the rule seems to us the more confidence we naturally have in applying it, and therefore if it happens to have defects of which we are ignorant or forgetful the more obstinately we may be deceived. An extreme example of this class of cases would be where different inferences are drawn from the same scientific experiment by two researchers almost equally equipped with the relevant knowledge. Every detail observed or arranged by them in conducting the experiment is supposed by both of them to have its own importance as coming under accepted causal rules, but it frequently happens that one observer has more insight than the other into the risk of applying one of these rules in particular cases. The rule being, let us say, that X causes Y, one observer may conceive this more strictly than the other, and so apply it more confidently, while the other doubts whether this or that detail which in a general way deserves to be called X is exactly the *kind* of X from which Y can be safely inferred. He sees a slight indefiniteness in the conception of the rule while the other observer fails to notice it.

This class of cases, however, typical though it is of the most excusable differences of opinion about the application of a rule, does not well illustrate misinterpretation of the *words* in which a rule is expressed, because in a scientific laboratory words as such are kept subordinate to rapidly formed conceptions of a much more fluid kind. For our present purpose we

must think rather of rules which are expressed in language. Here the mistakes that are made, though often excusable enough, are of a coarser kind than those occurring in laboratory work, and the true nature of them is best seen rather low down in the scale, where for instance we find an extremist pressing the application of some rule more strictly than his neighbours, and imagining that therefore he is pressing forward and leaving them behind. He thus overlooks the fact that the discovery of exceptions to a rule is always later in time than the conception of the rule itself, and that it usually needs an amount of knowledge and of careful reflection which are not needed for simple acceptance of the rule as a safe guide. It is cheapness of thinking, rather than real advance or progress, that characterises the extremist in any line of thought; for it is always less trouble to accept a simple rule than to take into account its exceptions and give due weight to them. The orator, for instance, who tells us that "there can never be any solidarity of interest between Labour and Capital" is merely behind the times.

Definite and blatant extremism requires for its full perfection not only personal conceit and lack of knowledge of the facts, but also usually a strong emotional bias. And these three things—besides a desire to save ourselves trouble—exist *more or less* in all of us. Consequently we are all more or less in danger of some excess of reverence for concisely stated rules. It is of course the milder forms that present the most difficulty and that lead to the more excusable and persistent differences of opinion. The excuses that exist for misapplication of rules are often real enough, and three of them may here be specially mentioned. In the first place the question how much care should be taken admits of no general answer; occasion and circumstance come into it, and admittedly we may fail on occasion through excess of caution as well as through carelessness or ignorance of the risks. Hence each opposite party can often make a plausible defence of the method he adopts. In the second place statements hardly ever correspond literally to the full meaning that is intended by them. The simple-minded advice that we should always "say what we mean and mean what we say" forgets to pay attention to the conditions under which our statements are actually made. In speaking or writing we have to consider as best we can the intelligence of our audience. Almost always the audience is expected to fill in part of the meaning from the context, from their own previous knowledge, or from the nature of the occasion. For several good reasons speakers and writers usually

condense their statements intentionally. We all dislike wasting words, we try not to insult or weary our audience by too much explanation, and sometimes we even hope that a concise inaccurate statement will be clearer than if we attempted to make our real meaning complete. It is not only laziness that leads us to reserve explanatory qualifications till they are asked for.

So general is the practice of condensing statements by leaving out part of their intended meaning, that reading between the lines of a statement is a common habit with us all. Very often there is no mistaking a clipped statement's meaning; the context explains it almost automatically. In our daily interpretation of statements we are nearly always aware of the context in which they are made. The context helps us to see the *purpose* of the statement, and so to appreciate its intended *purport*. On other occasions we become aware that we have not paid enough regard to the context. This is one of the reasons why in real disputes the 'logical' rules of interpretation carry so little weight. We naturally hesitate to cease reading between the lines merely because we are told, in the name of logic, that we ought to do so. If we are to use any sort of logic at all—if we care to make our judgments conform to any sort of systematic criticism—we naturally desire a logic suitable to our present-day conditions, instead of trying to revive the narrow medieval rules of formal disputation.

These considerations lead to a great change in our habits of thought about meaning. The dictionary meaning of words, and the so-called logical meaning of sentences, become our servants and no longer claim complete authority over us. We can no longer suppose that a statement—especially when we find it disputable—*must* have one and only one 'correct' meaning which is clear to all but the ignorant or the careless. It may still, no doubt, have a surface meaning capable of deceiving us as to the best way of disputing it; but where both parties are willing to avoid this deception they can always with a little trouble get it corrected and the really intended meaning explained. The insincere assertor gives himself away by refusing to answer questions about his actual meaning, and the insincere critic by refusing to listen to explanations of it.

III.

The third of the excuses for misapplication of rules is more difficult to deal with when we encounter it than either

of the other two. It arises through the *necessarily* incomplete descriptiveness of all descriptive terms as such. Here we have to make the best we can of the curious mixture of virtues and defects that language, by its very nature, presents to us.

Description is perhaps the commonest and most familiar use of language. We cannot state any fact without describing it, however vaguely and scantily, and we cannot state any rule without describing in the same way the supposed conditions of the inference and also the nature of the inference which those conditions are supposed to permit. But, familiar as the process of description is, our common-sense views of it have a peculiar defect. The fact that one description may be fuller than another is everywhere recognised, but it is less obvious, and less widely recognised, that no description of a concrete fact or event can ever be complete. This truth is obscured by our need for being content to use descriptions which fall short of perfection. Imperfect descriptions are often *sufficient* for a limited purpose; for that purpose therefore, they may be taken as perfect. And when we find that a description is sufficient for a great number of purposes we are apt to think of it as lacking any trace of imperfection. The rough and ready views of common sense are in fact constituted by this method of neglecting risks that are *generally* unimportant instead of discriminating between the various purposes for which variations of importance are discoverable. We are thus tempted to take sufficiency for most purposes—frequently called “sufficiency for all intents and purposes”—as equivalent to sufficiency for this or that purpose which is in question.

On a lower level than that of philosophical theory we often meet with some difficulty in making our descriptions complete enough even for ordinary needs. Descriptive adjectives, for instance, often suffer from an obvious kind of vagueness. Many of them run in contrasted pairs, like large and small, hot and cold, tall and short, and then there is often a difficulty in saying clearly whereabouts on the scale between these extremes a given thing comes. On some scales, to some extent, we are able to meet this difficulty by means of measuring instruments such as a thermometer or a foot-rule; but we have no available instruments for measuring (*e.g.*) goodness and badness, or truth and falsity, or beauty and its opposite. An additional trouble is that different standards suit different occasions, and we may be uncertain which standard a speaker is referring to on a given occasion.

And this defect of unavoidable incompleteness and consequent vagueness of description does not belong only to

adjectives. What grammar calls 'substantives' are open to the same objection. There is, for instance, the familiar old puzzle about the number of grains that properly constitute a 'heap.' This old puzzle has a far-reaching application to descriptive words of any kind. Verbs, for instance, describe states or actions; but in a world of continual change no state or action persists without some alteration; its qualities grow or diminish relatively to a central type which can no more be fixed than that of a heap. By agreement, indeed, we may always draw a line artificially and "make it so," but these artificial agreements are never secure against the need for reconsideration, and differently drawn lines suit different occasions.

We can if we please and we largely do, in daily life, forget this difficulty. Even philosophers, half a century ago, were content to ignore it. J. S. Mill for instance—who was still a leader of thought in the 1870's—has a chapter¹ on the "Requisites of a philosophical language," in which the difficulty is treated as non-existent. The first requisite, he tells us, is that "every general name should have a meaning steadily fixed and precisely determined"; and the second is that "we should possess a name wherever one is needed." His observations throughout the chapter show plenty of general wisdom but never a sign of understanding that these ideals are hopelessly out of reach. How can we expect a name for every point on an infinitely divisible scale, or precisely determine the meaning of a name which covers an uncertain number of them? And if we could do this, how could we induce other people—including our descendants—to accept our decisions as final? This oversight may have been due to Mill's pre-occupation with generally accepted (or dictionary) meanings, but the result is that we are left without any help towards making language 'philosophical.' It is rather like telling us that the best way to achieve truth is to be careful never to make an error. If on the other hand we face the facts about descriptive words we may have a chance of finding a remedy for their vagueness.

So far we have only noticed that many descriptive words—and notably adjectives—have this elastic quality which makes their application occasionally uncertain, the source of the uncertainty being their failure to specify the precise position on a sliding scale of that which is described. The description lacks particularity; it is too broad and general for complete specification. But when we enquire how description is necessarily performed we shall see that no description of a

¹ Bk. IV., ch. vi.

concrete thing or event ever can be complete. We can only describe anything by saying what *kind* of thing it is. And when a kind includes two recognised sub-kinds we can also mention which of them the thing belongs to; and so on, as long as we care to carry the description further by splitting up the sub-kinds in the same manner. The trouble however is that because description is always by kinds and sub-kinds it can never specify all the details present in a concrete case. There is theoretically no end to the sub-divisions of which any kind is capable; and however long a list of descriptive names we may apply to a case we are still saying what *kind* it belongs to. Any kind, or sub-kind, as such, must contain members which have their individual peculiarities and so differ in some respects from each other. ✓

Some readers may imagine that though Mill's 'Ideal Requisites' are unattainable the recognition of them may still be of use as setting us an aim towards which we should try to approximate as near as possible. If we cannot get perfect definiteness why not make our descriptions as nearly perfect as we can? This sounds plausible because the method of hitching our waggon to a star has much to be said for it in other contexts—for instance in dealing with ideals of conduct. If we cannot always be truthful let us try to be as truthful as we can; and the same with other virtues which are difficult of attainment. But in the matter of fullness of description it would be a false guide, because it is quite easy for a description to be too full—too crowded with detail to be suitable to a given occasion; it may be choked and confused with irrelevant matter. The ideal to follow, therefore, is not an approach to completeness as such, but a selective emphasis on the *important* details, keeping the unimportant ones cut of focus.

It will be said perhaps that common sense habitually does this, and with a fair measure of success. I should prefer to say that common sense habitually tries to do it, and that its failures are due to the habit that so often causes the failures of common sense—the habit of being content with a general view where a particular one is required. So far as common sense can be contrasted with science, or philosophy, it judges of importance in the lump, instead of taking the trouble to discriminate between the different purposes for which the importance of any detail may vary. Importance only exists relatively to purposes of some sort, and what is important for most purposes is often unimportant for a special purpose at a given time, and *vice versa*. The sufficient description must be relative to the occasion.

Now the class of occasions we are here concerned with is where doubts have arisen about a verbal link supposed to connect a fact with a rule. We have seen that the incomplete descriptiveness of a term X sometimes does and sometimes does not make the term ambiguous in that use and so invalidate the inference. In order therefore to decide whether the link is real or not we have to supplement our general view of the nature of descriptive terms by taking the particular occasion into account.

It may here occur to some reader that this involves begging the question whether the inference is sound before deciding whether the link is real. But there is no need to take it so, if we admit that statements need interpretation before they become assertions; *i.e.*, before they become capable of truth or falsity. When therefore we adopt the method of interpreting each of the statements in the other's context this supposed objection vanishes. An incomplete description of a fact, and an incomplete statement of the intended meaning of a rule, though the incompleteness can never be entirely removed, can often be made sufficiently full to justify the connexion. The statement (*e.g.*) that all X is Y (or that when anything is X it is Y; or that X causes Y) may need some qualification before it fairly represents the meaning intended by it on a given occasion. Suppose the speaker admits that in order to make it (in his opinion) true it should speak of AX, and not of X in general. Then the term X, when predicated of S, would be sufficiently descriptive for its purpose if (but only if) it is intended to mean AX. The two statements have, of course, to be 'true,' or else the inference fails; but the question whether they are true comes *after* the question as to their intended meaning, and the latter question is what decides the reality of the link. Ambiguity on a given occasion is thus avoided, though later discoveries of the need of further qualification of the rule may always be expected to renew the difficulty of connecting this or that fact with it. Until we become omniscient we are liable to find ourselves using unexpectedly ambiguous terms.

In the application of rules to cases what the occasion calls for is only *sufficient* fullness of description to bring the case under the stated rule when the latter statement is so interpreted as to be thought true. With anything less than a strictly universal rule, X as a description of the conditions of the inference may fail to do justice to the speaker's intention. Though he uses the word X he may not mean X pure and simple, but X with some implied qualification which perhaps he finds difficult—or thinks unnecessary—to explain at

length. But it is this occasion, and not occasions in general, which the predication—the statement of fact—has now in view; and details which are unimportant on most occasions may very well be important here and now. As we have seen, one of the commonest of the omissions made is a statement of the precise degree of X-ness which is intended to be implied by the word. But other omissions are also commonly made. For instance some experts are open to bribery, while others are not. On most occasions this difference is an unimportant detail in the make-up of an expert. The bribable expert may even be more truly an expert than the unbribable one. But when the question is as to the value of his evidence in an arbitration case where large interests are at stake this detail begins to acquire importance. The rule that unbribable experts give trustworthy evidence cannot be applied to Smith *on this occasion* without raising this question of fact about him. The bare description ‘expert,’ however suitable for general purposes, becomes insufficient for the special occasion.

When we have admitted that description, though it may be sufficient can never be complete, it follows that *definition*, as a process applied to descriptive words taken out of their special context, as a dictionary takes them, may accomplish its own purpose of translation from less understood into better understood language, but can never be a remedy for discovered ambiguity. For that purpose it is necessary to take the particular occasion into account, and to regard each of the two statements—the rule and the predication—as context for the other. The predicate ‘expert’ for instance, when applied to Smith may have a different meaning from what it has when applied to Jones, in view of the rule that *unbought* expert evidence is trustworthy. When an ambiguity has been discovered it is not the contextless *word* X that needs defining, but the complex statement that S is X and therefore Y. Thus definition as a remedy for ambiguity must be not only of words but of statements, and of statements linked together.

The process that is usually known as definition, then, is no remedy for the residual vagueness that belongs to descriptive words as such. If there is in *fact* no sharp distinction between the opposite ends of a scale even the most ingenious manipulation of *words* cannot make one. Any line that is drawn is confessedly artificial, and though the artifice may be justified its justification does not consist in altering the facts of the case. We cannot for instance justify the line at which payment of supertax begins on the ground that those

on one side of it *are* rich while those on the other side *are not* so, but only on the ground that a line is wanted and must be drawn somewhere. The choice is always between an artificial line and none at all.

On the other hand definition as a declaration of a speaker's meaning, after an ambiguity has been discovered, is always competent to remove the particular incompleteness of description that has caused the ambiguity. Other hidden ambiguities may remain to be discovered and removed later, but in order to discover *any* ambiguity in the application of a rule to a case we must already be aware of the dictionary definition of X, since the essence of the discovery itself consists in finding the dictionary definition insufficient to guarantee the reality of the verbal link. The dictionary definition of an 'expert' as "a person having special skill or knowledge" cannot help us to distinguish between persons with sufficient and those with insufficient degrees of these qualities, and still less between those who are open to bribery and those who are not.

A further consequence of our view is that since perfect definition is impossible no *distinction* can be supposed perfectly firm and clear in all its possible contexts. Distinctions that are notoriously vague—*e.g.*, that between drunk and sober—cause little real confusion. Everyone is aware that when we assert that on a given occasion the motor driver was drunk we take upon ourselves to assert that *in this instance* the large doubtful region between these terms is irrelevant,—that this is not one of the many possible doubtful cases. But with distinctions which are less obviously loose the neglect to discriminate between different contexts may at any time mislead us.

Take such a distinction as that between true and false. There is a real temptation to suppose the line between these contrasted terms sharper than it is. Since any statement may be true in one interpretation and false in another, and since every assertion must come before us in the form of a statement, the fact that yes and no are the only two possible decisive answers to an unambiguous question cannot save the question itself from being ambiguous, or guarantee that one of these answers must be true and the other false. No statement therefore need be either true or false until *sufficient* explanation of its meaning in a particular context is given. All that we can say about actual statements is that if and when all trace of ambiguity has been removed from them, then they must be either true or false. But because of the necessary indefiniteness of predicate terms there is always a

risk in assuming this condition to be fulfilled. We may, and often do, ignore this risk, and that is one reason why disputes often remain hopelessly unsettled.

IV.

So far we have treated the difficulty of correctly applying general rules in particular cases as one special problem that commonly arises in the course of any long dispute. But our view of its prevalence may be extended much further if we realise not only that one truth usually leads to others but that this quality of truths is precisely what the whole of their value depends on. If we could imagine any truth totally unconnected with other truths, it would not be a possession worth having. But it may be seriously doubted whether we could even imagine the existence of such a 'truth' except as an unrealised possibility. For how could we recognise an assertion as true unless we had some means of testing it? And how could any alleged truth be tested except by its relation to other truths which are already accepted? No doubt we are often puzzled for a time to see exactly how a newly acquired truth affects the store of truths that we already possess—to see exactly which of them it confirms, or weakens, or destroys. But even from the first we usually get some light upon its probable effect upon our present beliefs, and we never doubt that this light will grow clearer as time goes on. We never doubt that every newly accepted truth, as such, allows new inferences to be drawn from it if we can discover what these are.

That every truth, when recognised as such, *must* have other truths inferrible from it may be seen also in another way. Until an alleged truth is expressed in language we cannot begin the process of enquiring whether it deserves to be recognised as true. There is of course a possibility of 'feeling a truth in our bones,' or mystically, and such experiences cannot be proved delusive by the fact that other people do not feel them. But then they are by their very nature incommunicable. In order to convince other people of a truth that we have perceived, it has to be put into language so as to meet their criticism and conquer it, and even to be critically judged by ourselves. And wherever language is used the question of its *interpretation* arises, and any doubts about the correct interpretation of a statement are of necessity doubts about what is intended to be *inferred* from it on the supposition that it expresses a truth.

For example, I may believe that every X is Y, and yet fail

to foresee all the difficulties in the way of deciding whether some particular case, S, deserves the predicate X or not. A critic with more imagination, or a wider experience, may want to know my decision on this point before he can decide whether to accept or reject my statement of the general rule. My statement is open, he says, to two possible interpretations, in one of which S is supposed to come under it while in the other it is not. If it is intended in the former sense the critic would reject it as false, but if I disclaim this interpretation his objection would be removed. Meanwhile there is a defect in the statement's meaning, a defect which—for this critic—is fatal until the intended meaning is declared. He can neither accept nor reject the assertion which the statement is intended to make until he knows which of the two possible meanings is in fact intended. For the intention and the assertion are the same thing. The statement does not yet exist for him as an assertion and so cannot be either accepted or rejected intelligently, until the doubt as to what is meant to be *inferred* from it is removed.

The same applies to any statement of a particular fact, such as the statement that S is X. When we accept a stated fact as true we frequently do not foresee some of the inferences it may lead to. But when it comes to testing a statement of fact—*i.e.*, when doubts are suggested or imagined and we want them removed—it is only through drawing inferences from the fact, and seeing how these inferences accord with other accepted facts and rules, that any test can be applied.

These are common controversial situations, and are referred to here as showing that both parties in a dispute recognise that no 'truth' can be asserted as open to criticism without assuming that it admits of inferences being drawn from it. We may of course make statements in the form of dogmas and expect them to be accepted uncritically. But if this expectation should ever be realised the situation would no longer be controversial, and therefore lies outside our present interest.

There is, however, one very common surviving delusion that is removed by the view that every truth points to other truths by way of inference; namely the delusion that "truth for truth's sake" can be intelligently contrasted with "truth for practical purposes" except by putting upon the latter phrase a meaning which no philosopher has ever deliberately intended it to bear. Some people there are, no doubt, who prefer to make their acceptance of a truth depend on the question whether their interests—material or spiritual—are served or damaged by it. But this is only playing a trick on

themselves and pretending to seek for truth when in fact they are seeking for something else. It is a flimsy piece of self-deception and cannot stand against the occasional need, experienced by everyone, of accepting unpleasant and even disastrous truths.

The motto "truth for truth's sake" need not be interpreted as denying that truth exists for the sake of inference. In fact the only value that can be found for it is when it is directed against the mistake of confusing truth with interest in the manner just mentioned. The fact that truths are valuable for the sake of the further inferences they warrant, and that are required to give meaning to the statement of them, does not in any way prevent us from keeping our search for them free from all distraction by other aims, however desirable. Even the loosely expressed motto "truth for the sake of practice" may be interpreted as saying that any truth, through the inferences it leads to, does in fact help us to make some wiser practical decisions than we could make without it.

A further corollary seems to be that there can be no truth (expressed in language) which is not one of a pair of truths each of which implies the other. If a statement professes to assert a matter of fact it must imply some rule or rules as applicable to it. And if it professes to assert a rule it must imply that rule's application to a number of particular facts. Without these implications no statement of rule or fact could have any meaning, and in so far as a doubt can arise as to the precise implications latent in them there is a risk of their being interpreted falsely through the incomplete descriptiveness of the verbal link. These points being granted it follows that all disputable matter, in proportion to the subtlety and difficulty of the points at issue, turns upon the uncertainty of applying rules to cases.

So far as at present appears the only objection to these views comes from people who fail to understand the nature of ambiguity. Among them two widely different classes may be distinguished: first, those who dislike subtle difficulties on account of the trouble they give, and who therefore condemn them in the lump as quibbles or logomachies; and secondly, those who are willing to pursue philosophical questions with devoted labour, but only within the limits imposed upon them by some old logical assumptions, accepted uncritically.

The former class have the better chance of learning to discriminate between the right and the wrong kinds of careful enquiry into meanings. In subjects that interest them they are already often capable of this discrimination, even

though they have not troubled to generalise about it; and it is chiefly in subjects that do not happen to interest them that they seek, by raising the objection against hair-splitting, to put an end to discussion. Probably no readers of *MIND* belong to this class, but there may be some who fail to see clearly the difference between relevant and irrelevant enquiries into the precise meaning of statements, or between real disputes and merely verbal ones. If our view of the nature of ambiguity is accepted it follows that the decisive question always is: do we or do we not see two possible meanings in a given statement, in one of which the statement seems to us to make a true assertion while in the other the assertion seems false or doubtful? If we do, then we cannot either accept or reject the statement till the ambiguity is removed; if we do not, then no verbal objections have anything to do with the question whether the assertion is true, but at best have only grammatical or literary value. At their worst they are feeble attempts to evade the point at issue, and are lightly condemned as quibbles. In any disputed question the method of finding definite ambiguities and getting them removed may often be of the utmost importance for distinguishing between the truth and the error maintained on the opposite sides.

The other and more philosophical class of those who fail to understand ambiguity will be more difficult to convince. Our criticism of the results of their laborious ingenuity is too far-reaching to be heard with any patience; and in their various ways, from careful silence to irrelevant rejoinders, they have often shown their intention to avoid making use of it. Fortunately, however, the old logical system which chiefly accounts for their neglect of the risks of ambiguity has lost much of its misleading power within the last twenty years, and a younger generation of philosophers will start with a better chance.

The traditional logic, it is true, has been much criticised even by those who have nevertheless allowed it to spoil their philosophy. While strongly objecting to some of its more obvious futilities they have never discovered how its neglect of the risk of ambiguity restricts its value as a corrector of false reasoning. The habit of carelessly using the word 'proposition' indifferently for an assertion (or a judgment) and for a statement intended to express an assertion (or judgment) is partly a cause and partly a result of blindness to the nature of effective ambiguity. In so far as we forget (1) that judgments have to be expressed in the form of statements before their truth or falsity can be critically examined;

and (2) that the correct interpretation of statements is often a difficult matter; we are liable to think of ambiguity as a defect attaching only to a small number of words, namely those that have two or more meanings distinguishable in a dictionary. Ambiguity so understood is an almost negligible blemish, easily made harmless by the most ordinary attention to the context in which the word occurs. 'Equivocal' words—words with plural meanings—can hardly be used in any sentence without showing us at once which of their various meanings is here and now intended. The difficulty rather is to imagine anyone being seriously confused by an ambiguity of this simple and trivial kind. It is natural that philosophers to whom this dictionary notion of ambiguity seems sufficient should ignore all consideration of it in developing their logical systems. Their conception of serious logical error tends to become restricted to that of verbal self-contradiction. They tend to regard the traditional Laws of Thought as applicable to *statements*, without further enquiry into the meanings that may be intended by a statement on a particular occasion.

It is chiefly in their philosophy that this habit shows itself. In everyday questions, and in science, the insufficiency of descriptive words to perform their function unmistakably is constantly borne in upon us all by our encounters with awkward facts. Common sense and science are mostly content to recognise this difficulty when it becomes pressing, without generalising about it as we are here trying to do. But in philosophy there is a temptation to look down upon these mundane difficulties as on a lower plane and therefore unlikely to suggest any important ideas. Especially is this temptation felt by those who interpret the slogan "Truth for truth's sake" as contradicting "Truth for the sake of inference".

When on the other hand we recognise that even philosophical doctrines have to be expressed in verbal statements, and that verbal statements of every kind need interpretation before we can decide on their truth or falsity, we find that to reckon without the risk of ambiguity is often fatal to an understanding of disputed points whatever their subject-matter. If we admit that the doubted meaning of any statement professing to be true can only be discovered through the inferences that are supposed to follow from it, we must also admit that the question whether the statement is true or false requires a preliminary settlement of any doubts about these supposed corollaries.

In conclusion: assuming that we are right in holding that

every statement of a particular fact involves in its very meaning a reference to some general rule, and that every statement of a general rule involves in its very meaning the right of applying it to some class of particular facts, it follows that the difficulty of correctly applying rules to facts may arise in connexion with any statement whatever that claims to express a true assertion. For no assertions are conceivable which do not assert either facts or rules, and *therefore both at once*.

One reason, perhaps, why the views here suggested may be found unconvincing is the difficulty of illustrating them clearly by examples taken from real disputes. Real disputes—at least where there is much to be said on both sides—are usually so tangled and so full of unexpressed considerations that the reduction of them to any simple formula, such as the question whether S is X and therefore Y, seems to destroy much of their reality. But we need not claim any more for this formula than that it represents, in a fragmentary way, the stuff out of which real disputes, however complicated, are woven. Take the formula 'S is X' for instance. This is evidently much too simple to be fairly typical of statements of fact as we meet with them in real life. It is seldom that we can reduce to so short a form the statement of any fact that can claim to convey information. Usually we find it necessary to mention a number of details as parts of the fact asserted, and also to add qualifications, or other explanatory remarks intended to guard against misinterpretation. There is indeed no limit to the complications possible in what constitutes a 'fact'; there is no clear distinction to be made between *one* fact and *many*, since any details belonging to a fact are also facts on their own account. Nor is there any fact, however 'small,' that cannot be analysed into details. For, in a world of change, facts are always events.

Nevertheless, the concise form 'S is X' has its uses. What it does represent sufficiently well is the statement of that part of an asserted fact which a critic chooses, at a given time, to dispute. In statements of fact, as we find them made, there are always some parts more open to criticism than others. We noticed above that criticism, to be effective, has to proceed step by step, picking holes wherever it can, and concentrating first on what appears to be the weakest point. Hence it is usually only a small part of a complex fact—namely the detail X in it—which is singled out for attack. When a complex fact, consisting of the details ABCD . . . X, is disputed, it is not necessary to dispute every detail in it; and even when many of them are disput-

able the detail X may be thought the most easily proved wrong, or for other reasons the most worth disputing, and so chosen for the first point of attack. The critic of a fact, however complicated it may be, complains either that the detail in it which is described as X is wrongly so described, or else that this description, though 'correct' in other contexts, is too vague—too incompletely descriptive—to warrant such and such an inference from it.

We have here been concerned with the latter of these two objections only, as referring to the kind of fault in statements of fact which is most excusable and which therefore gives rise to the most two-sided and difficult disputes. The typical situation we have to consider is where the description X, applied to a fact, is not grossly wrong but has even "a good deal of truth in it," and yet fails to make a satisfactory link with some rule which the speaker wishes to apply to it so as to draw an inference.

Again, since no detail is really single, even a nominally single detail X in a complex fact need not be supposed to come under only a single rule. And yet the disputed inference which is drawn from it does point the way towards some rule which appears more relevant than others. As noticed already our guesses at an opponent's error are often wide of the mark, though the range of their inaccuracy tends to be narrowed as the dispute goes on. At any rate I see no way at present of dealing with the real complexity of disputable matter than by breaking it up into these imagined fractions. Perhaps some reader of this article will be able to show us a better method, either still more free from the old logical traditions or still more in accordance with them.

The scientific habit of being content with the gradual elimination of discovered errors in the inferences we draw from facts and rules, and therefore content with the admission that human 'truth' is always incomplete, seems to conflict with the philosophic habit of hoping for some more direct and final results. Truth recognised as incomplete is not what philosophy claims to be seeking. But however laudable may be our desire for perfect truth it is perhaps worth while to consider what can be meant by searching for it. We may of course search for something without knowing how to get it, but to search for something which we could not recognise even if found can hardly be thought a serious pursuit. And what test can be proposed by which any truth could be recognised as perfect? No one, I believe, has ever suggested such a test—if we except the verbalist's assumption that complete avoidance of self-contradiction would suffice

There are some philosophers who try to separate the question 'What is Truth' from the question 'How can truth be recognised'. They are, no doubt, at liberty to choose what questions they will try to answer; and the question what is the best meaning *for general purposes* that the word 'truth' should officially bear may be supposed worth trying to answer. But no answer to it, however good, can satisfy the other desire, no less laudable, for enquiring into the inferential value of this or that judgment we are tempted to make. When we find that our wisest human judgments, at any period, always serve some inferential purposes but yet are always liable to mislead us in other applications of them, why should not philosophy, like science, be content with the search for the breaking-point of the inferential value of each particular judgment as it comes before us? However large and far-reaching a given judgment about the universe may be, the question what corollaries are intended to be inferred from it, or what other views it is intended to contradict, can only be ruled out of court by those who are afraid of criticism.

III.—ON THE RELATION OF APPEARANCES TO REAL THINGS.

By C. A. STRONG.

THE point in dispute between neo-realists and critical realists is one which, with our present knowledge of the physiological concomitants of perception, and with the various analyses of this activity before us that have been proposed by philosophers during the last three hundred years, it should not be beyond the wit of man to decide; though the decision might fall out in a way not wholly accordant with the claims of either school. Let us see what these claims are.

The fundamental principle of neo-realism is the necessary identity of the real thing with the appearance. This identity is necessary to the possibility of knowledge: for, unless in perception the real thing appears, no inference from what appears can justify our belief in a real thing; from what other source than perception could our knowledge of it be derived? Such an inference is not defensible logically: for, in order to infer a real thing, we must possess at least a conception of it; but all conceptions have their origin in perceptions; if, then, perception reveals only appearances, we can have no valid conception of anything else, and it is only eventual appearances that we can be justified in inferring. This logical consideration is the strong point of the neo-realist. He draws from it the conclusion that real things are in no way distinct from appearances, and that appearance is the stuff of which reality is composed.

The critical realist points to the fact that some appearances—the supernumerary object when we see double, the illusory object when an after-image is projected—are *not* physically real. He explains how such non-veridical appearances can arise by referring to the psychology of perception: if an impression happens to be produced on the organism ill-fitted to convey the outer existent correctly, what appears is more or less unreal. Psychology is the critical realist's strong point. He asks the neo-realist, moreover, how real things can be

appearances at times when they do not appear; surely appearing is a fact extrinsic to the being of things, a relation to a subject. It is so just as much when the object appears truly as when it appears falsely. Consequently, he concludes, the appearance and the real thing are always distinct.

In each of these contentions it seems to me that there is something right and something wrong; and in the following I shall try to suggest a view of the relation between appearance and real thing which preserves all the truth and eliminates all the error.

1. *Apperception Excluded.*—Perception, in human beings, is of course very largely a matter of apperception—of interpreting in the light of past experience the objects presented at the moment—and without this element of apperception we should not be as fully conscious and wide awake as we are. The lower animals are less conscious than we because they interpret so little. Nevertheless in analysing perception it is desirable, if we would understand its nature aright, to omit this apperceptive element, and ask what may be the constituents of the perceptive act in such an animal as a newly hatched chick. The chick has had no experience, and yet we cannot doubt that it sees the grain of corn or pebble at which it pecks.

2. *The Three Aspects of Perception.*—Perception, even in the chick, involves three things: *intuition, intent, and animal faith*.¹ These are not separate acts, occurring successively, or that may be performed independently of one another: as is shown by the fact that all three rest on the same bodily process—the motor reaction or attitude. They are only aspects of the one act of perception. Let me show this in detail; I will begin with intent.

(1) Intent is reference to an object. When the chick looks at a pebble, its optic and head muscles are adjusted so as to bring the image of the pebble upon its retina: it is that object, towards which vision is directed, then, which is seen—that object, and no other, has been selected as that with which the chick's mind has to do. This selection of and reference to an object is what is meant by "intent".

(2) Only so far as an object is thus selected by an action or attitude of the chick's body is the visual impression (the

¹ I make use of the excellent terms chosen by Mr. Santayana, with whose analysis of perception mine agrees in most respects; but I am not sure that he would admit my essential point here—that intuition is not a separate act, but only an aspect of the one act of perception, and that, consequently, what is intuited is not a mere "appearance" but a supposedly existent thing.

state of the chick's self produced by the action of the external object) projected, in such wise that there is something before its little mind. Apart from projection, the impression is merely *in the mind or self*: only by projection does something come before it. "Intuition" is a name for that aspect of perception by which something is before the mind—it is another word for awareness.

(3) But when an animal reacts thus unquestioningly and, as a result, has an object present to its awareness, the unquestioning reaction or attitude is, so far as it goes, an assumption that the object is real. That the chick makes this assumption may be seen from the fact that it thereupon pecks. Belief never occurs except on this wise; though in human beings there may be an added emotion of confidence, and even the chick may have a kinaesthetic sense of its behaviour or attitude. As Spinoza says about the boy and the winged horse, to think of an object unquestioningly is to suppose its existence. Doubt never comes except as a secondary act, by which that which has first been supposed real is deemed open to question. The primitive attitude of mind is one of "animal faith".

Intuition, then, never occurs in ordinary life except as an aspect of an act which is one of reference to an intended object and of animal faith in its existence. It is this real object which we intuit, or suppose ourselves to intuit.

3. *The Appearance.*—Let us now examine the conditions in which there may be thought to be intuition of something which is distinct from the real object, and called an "appearance".

This occurs only when a philosopher—or in rare cases an ordinary man—after perceiving an object which he believed to be really there, sees reason to doubt whether the object was there, just as he saw it. He has now introduced a second, more abstract conception of the object or the real (to which second awareness the same principles apply as at first, except that the object is now merely conceived, not perceived), and with this abstractly conceived object he contrasts the object originally given, which latter thus becomes a non-existent or doubtfully existent object. This unreal or doubtfully real object he calls an "appearance". His original awareness of it, characterised, when it occurred, by the intent to know what was really there and by animal faith that this intent was successful, but with the animal faith now cancelled by doubt, is the mere "intuition" to which he supposes the erroneous or doubtful object to have been present.

We may call the philosopher or ordinary doubter the "critic

of knowledge". In naïve or uncritical perception the appearance is treated as identical with the real thing. The appearance as distinct from the real thing is an object which exists only for the critic of knowledge, and which has been brought into existence as a separate entity by his doubt.

In many cases the critic of knowledge will be obliged, on consideration, to recognise that his doubt was unjustified: whenever this occurs, the mere appearance will for him cease to be such, and will become again a truly appearing object. Even when his verdict goes against the appearance, the latter is not something non-objective—that is, different in its category from the real thing—but is simply a perceived but non-existent object.

4. *Non-veridical Perception*.—Objects may be perceived, and yet not exist physically. There is such a thing as non-veridical perception, or as non-veridical elements in perception—and that it cannot be wholly explained by erroneous inferences or mistaken apperception, such cases as double vision, projected after-images, optical illusions, the voices heard by the insane suffice to show.

The error in these cases does not consist in attributing a wrong context to things which, in themselves, were correctly perceived to exist: it consists in perceiving something to exist which in fact does not exist. The eyes are directed at a certain spot, where something exists that might be perceived; in that spot something is seen which is different from what really exists there—as when, owing to the projection of an after-image, we see on a wall a red spot at a place where the wall is really white; and what we see is therefore something that does not exist at all.

It exists, of course, in the sense of being seen, but not in the sense of being a part of Nature. For there is no such existent at that point on the wall; nor is there any such existent elsewhere, for the visual impression by means of which we see the spot is in the head, not where the red spot is seen, and has neither the particular magnitude nor the red quality characterising the red spot. This last is therefore a phantasm, whose whole "existence" depends on being seen, *i.e.*, on the simplification and projection of the state of the self: in a word, its *esse* is *percipi*.

5. *Essence*.—An object which is only doubtfully existent is a *possible* existent. A possible existent is what is meant (or what I understand) by an "essence". It is something which, apart from the realisation of this possibility, exists only for thought.

Since the appearance which the critic of knowledge has

brought to light, and which he denies or doubts the reality of, is that of a single definite physical thing, the essence in question is in one sense a particular. Since, on the other hand, this thing does not or may not exist, but just the same appearance might be presented at another time or place, indeed at many different times and places, it is evidently a universal of the lowest grade.

But, in reasoning thus, it is important not to forget that the datum of perception was transformed into a mere appearance or essence solely by the critic's doubt: so that it would be an error to infer that what the *naïve percipient* was aware of was a mere essence; on the contrary, what he was aware of was a thing which, as an integral part of the awareness, he supposed to be real, and which may have been so. Thus the critic obtains his "essence" only by mutilating the datum of the original perceptive act, and detaching its mere *what* from the object, given to intent and animal faith, of which it was the description. This is a process of abstraction, exactly similar to the process of abstraction involved in generalising.

6. *Conclusion in regard to the Appearance.*—Perception, then, even after judicial sifting by the critic of knowledge, reveals only two sorts of data: things existent and things non-existent—or, it may be, things some of whose characters are real while others are unreal. It reveals no datum antithetical to things, and which is only a medium for cognising them; the only "appearance" discovered by the critic of knowledge is an apparent thing, which is supposed to be and may actually be real. The only "intuition" he is justified in asserting is intuition of such an apparent thing, intuition qualified by intent and animal faith; he is in no way justified in asserting that we *cannot* intuit real things, or that what we intuit—except in erroneous knowledge—is something distinct from them.

I think these explanations should make it clear that critical realism (at least as I hold it) is not guilty of the fallacy of representationism.

7. *Introspection.*—How comes it, then, that excellent minds are so helpless against this fallacy; and that, indeed, philosophers seem almost incapable of taking due account of the psychological conditions of perception without falling into it?

The reason may perhaps lie partly in a complication which has not yet been mentioned. There is another subsequent activity, distinct from the discovery of the appearance by the critic of knowledge, with which this latter is apt to be confused. This is the activity of the psychologist in cognising the state of the self, or impression. The impression on the self

is not the same thing as the datum given in perception—*i.e.*, the real or unreal but, in any case, apparent object: it is a new object of a non-physical sort.

The ordinary man becomes aware, when a light is too brilliant or a sound unpleasantly loud, that he has not to do solely with an existent outside his body, but also with a state of himself. His attention has been drawn to this state because of its intensity and unpleasantness. It follows that, even when we see indifferent lights and colours or hear indifferent sounds, we do so by means of states of ourselves, to which it would be possible for us to turn our attention.

When we turn our attention to them, something appears, which in one respect is exactly like the object given to perception, since it is made present to us by means of the same state of ourselves which, a moment before, we used in perceiving; but the altered direction of our attention has given to our cognitive act a new intent, so that now it refers to something within our bodies as its object. The critic of this new kind of knowledge may legitimately doubt whether what is within our bodies is exactly like the brilliant light or intense sound—at least, it is a fair question, just as it is in external perception, how far the appearance presented is veridical, and how far due, for instance, to such a process as simplification.

But in any case it is very important not to confuse the *object* of introspection with the *appearance* given in perception: the former being (in appearance at least) psychical in its nature,—that is, composed of feeling—and the latter a supposed physical thing. The distinction between them is that between a state considered in itself, and the same state as simplified and projected externally.

8. *Animal Faith*.—It is by animal faith in intuition, and by that alone, that we apprehend the existent (as distinguished from that which merely appears to us) at all, and become assured that we are not wrong in thinking that we have really to do with it. And this is true in introspection no less than in perception. *Cogito ergo sum* is not valid, if what is inferred is other than the momentary being of appearances.

I see no reason why animal faith should be restricted to the mere *existence* of what is beyond or within us, and should not be extended so as to give us equal assurance concerning the *nature* of that which exists. The difficulty, of course, is the frequent occurrence of non-veridical perceptions (and introspections?). But we judge these to be non-veridical precisely because they fail to accord with other, vastly more frequent perceptions, which, therefore, we esteem to be veridical—we regard dream phenomena, for example, as unreal because they

do not accord with the percepts of waking life. These last, again, more and more reveal a definite order, permitting of prediction. And, since human life depends on recognising the objectivity of this order, doubt as to its external existence appears capricious. It seems to me that a man should no more doubt the reality (in some form) of space and time than the existence of something besides himself.

Difficulty, of course, arises when we try to understand the relation of the self to the rest of reality. But if the self is the *object* of introspection—not the mere appearance, either to introspection or to perception—there is no reason why it should not be in space as well as in time, and be the real thing which to perception appears as the brain-process.

I think our principle should be to accept the deliverances of experience (both perceptive and introspective) as to the nature of reality except when they contradict one another; and, in cases of contradiction, to weigh carefully which of two experiences deserves the more credit, in view of all the circumstances. The result will be that, instead of doubting whether reality is in time and space, doubting whether it is physical or psychical, we shall assume that it is all these things at once; and I do not believe that any ultimate difficulty will be found in reconciling these diverse characters of reality with one another.

9. *The Precariousness of Knowing*.—What the critic of knowledge (or epistemologist, as we ordinarily call him) has really discovered is not a new category of "appearance" antithetical to reality and cutting us off from it, for appearances may be truthful, and all appearances are apparent things; but rather a truth applying to all perception, and indeed to cognition generally: that the apparently real may not be so. Cognition, in other words, is *precarious*—it is capable of yielding error as well as truth.

The psychologist can explain how this is possible. It is possible because perception is effected by using a state of the self, an impression on our being no more intrinsically referent to an object than the correlated nerve-process, as a sign of the external thing that produced it. To use states of the self as signs is to simplify and project them, as we do by reacting.

Thus, while perception is an intuiting of the object, it is not an *infallible* intuiting. Nor, on the other hand, is it mere representation, since the element of intent deals directly with the real thing and with nothing else, and the use of the sense-impression brings that thing sensibly before us. Perception is *fallible* intuition. This phrase, I think, hits off its nature

exactly—a delicate matter, in the case of a function so oddly combining strength and weakness that philosophers almost inevitably emphasise unduly either the one or the other.

10. *The "Infallibility" of Intuition.*—Thus it is an error to infer, from the fact that we sometimes perceive wrongly, that what we intuit is always something other than the real thing itself. It is so only when we perceive wrongly! When we perceive rightly, perception, because effected through the simplification and projection of sense-impressions, is not the less true intuition.

These sense-impressions, the only true "sensations," are in the head, and it is not they, or their qualities, that we intuit; we intuit by seizing their meaning. Thus a vision arises, which is present to intellect, seizing the meaning of the sensations, rather than to mere sense. There is no awareness or intuition except of such meanings.

It is only the critic of knowledge who discovers *infallible* intuition, in the sense of pointing out what the naïve percipient unquestionably saw. To say that *the percipient* intuits infallibly is to credit him with a different intent from that which he really had. His intent was to have cognitively to do with the real thing, and to intuit that. To call him "infallible" is like complimenting a bad marksman on the fact that his shot has very exactly hit the mark which it *has* hit. It is as if a Catholic should defend the infallibility of the Pope on the ground that it cannot be false that he says what he says. The Pope did not mean to utter empty words; the marksman did not mean to hit the side of the target; nor was it the intention of the chick to intuit a mere appearance and make his dinner of it.

11. *Source of the Error.*—Metaphors are dangerous in philosophy, but perhaps, after the preceding explanations, no misunderstanding will arise if we say that the appearance is essentially a *report* made to the self about a real thing. No report would be such if it did not contain a well-understood reference to the thing reported. The appearance is thus not a mere predicate: it is subject and predicate in one—a "presentation" is the analogue of a proposition.

The extraordinary error, by which the thing reported is thought to be indistinguishable from the report of it, and perception consequently conceived as infallible intuition, is due to confusing the critic's knowledge of the appearance with the psychologist's knowledge of the underlying state of the self. The appearance presented, for instance, when I look at a flower, is confused with the impression on the self, by means of which I see the flower, and the real existence

belonging only to the latter attributed to the former; which thus hardens into a physical object.

Not even in introspection is the thing reported necessarily coincident with the report of it. When, for example, we feel pain, there can be no doubt that we really do feel it, in the sense of having to do with a state of the self which presents that appearance; when, looking back a moment later, we say to ourselves that the pain was real, we are noting the fact that this state did really appear as pain—the fact that things really appear in certain ways being the “infallibility” of intuition. But as to the veridicity of this appearance to introspection the through-going critic of knowledge is justified in raising just the same doubt as regarding the truth of perception. The state of the self which we cognise as pain is real—there is no need to dispute the ordinary man’s animal faith on this point. It may have many of the characteristics presented by the appearance: intensity, greater or less volume, aptness to excite a reaction of aversion—even that psychical or sentient nature which is the most marked characteristic of this appearance; but all this is a question for epistemological criticism as applied to introspection, which cannot be shelved by merely pointing to the obvious fact that pain is felt as such. To argue thus is as if one said, I certainly saw a red flower. The flower was certainly seen as red, but the redness was not certainly in the real flower.

12. *The Fallacy of Scepticism.*—Scepticism such as Hume’s, with the erroneous epistemological theories which have been constructed upon it as a basis—Kant’s agnosticism, the transcendental idealism of the post-Kantians, current neo-realism, which may be described as a sort of transcendental realism—is due to overlooking the element of intent which enters into all perception; and this element is overlooked, because it is not seen that action, or a bodily attitude of some sort, is the indispensable physiological basis of awareness.

Sensation and reaction are supposed to be independent of each other; the passively received impression is supposed to be already awareness of something, and it is not seen that only as the impression is responded to does awareness of anything arise.

This dependence of awareness on response is a consequence of the haphazard manner in which the function of knowing has been brought into existence by evolution. Nature could give us knowledge of our surroundings only by causing us to interpret our impressions by means of action. Awareness is not a mysterious power of self-transcendence antithetical to all physical functions: it is a natural

self-transcendence effected by the use of sensuous impressions as signs.

These sceptical and phenomenalist philosophies are really appropriate to another age—not to that which has witnessed the rise of the theory of evolution and of physiological psychology. Here we are in the midst of Nature, painfully provided by her with instruments enabling us to get some hint of our surroundings, and to learn the relations of things sufficiently for the needs of practice: and we venture to doubt whether our environment is real at all—or, passing to the opposite extreme, imagine ourselves endowed with a faculty that puts us in complete possession of it. But it is only by reacting as if things were real that we are aware of anything at all! Intuition, and not merely intent, is dependent on the bodily reaction. The truth about knowledge is intermediate between the Scylla of scepticism and the Charybdis of phenomenalism: we neither apprehend external things with entire correctness and adequacy, nor are incapable of apprehending them.

13. *Status of the Appearance.*—We have now reached a point at which it is possible to formulate exactly the status or nature of the appearance, and to say in what sense it is identical and in what sense non-identical with the real thing.

Cognition is a reaching out, by the conjoint aid of our senses and our muscles, towards something, which is defined solely by the exact method of our reaching out, and which, considered simply as a datum to the mind and apart from the question of its real existence, is therefore a mere phantasm, whose sole connection with reality lies in its presence to the self. But only abstraction from the complete datum of perception has made of this fancied object a *mere* phantasm: for the element of intent has located it in a certain place, and the element of animal faith has posited it as real. If, then, there really is an object, such as that defined, in that place, we have not merely reached out towards this object but grasped it. Since the defining was partly by means of sensations, we have grasped it sensibly—that is, intuited it. (This is true, *nota bene*, only in so far as perception is veridical; and how far it is veridical remains to be seen.) Thus by perception we not only “have to do” with the real thing, but “apprehend” it, and that directly. How can epistemology demand more?

The appearance, then, is an entity of a non-existential sort; though sensible, it is the sort of thing that has always been designated by the term “idea.” But this idea, in the setting in which it occurs, is always the idea of an object. The doubt

conceived by the critic of knowledge, and that alone, has severed it temporarily from the real thing of which it is the idea. In truth its connexion with reality is twofold, as being partly present to a self and partly the presence of a real thing.

The term "appearance" is a treacherous one, since it is not certain to be always understood as meaning *appearance of a thing*.¹ What the term designates, of course, is an *apparent thing*, which may be real, or be partly real and partly unreal—the adjective merely marking the possible unreality entailed by its relation to a subject. But the occasional occurrence of wholly unreal appearances, and the frequent (and indeed normal) occurrence of appearances that are partly real and partly unreal, easily lead us into the error of supposing that *all* that is apparent is necessarily unreal, and of hypostatizing the appearance into an immediate object distinct from the thing itself—in other words, into representationism. The remedy for this is to speak, wherever possible, of "apparent things."

14. *Identity of the Appearance with the Real Thing.*—In the first of my articles on "The Genesis of Appearances" I spoke of the "coincidence," in veridical perception, between appearance and real thing. The expression (which I took from Prof. Montague) is a useful one, because the appearance and the real thing are in one way identical, and in another way not identical (otherwise they would not be distinguished).

(1) The appearance is not identical with the real thing *psychologically*. When the real thing exists unperceived, there is no appearance, and the appearance, therefore, must be something that comes into being at the moment when a thing is seen or touched; and consequently distinct from the latter. The relation between them is like that between a man pointing at an object and the object at which he points; *non-veridical* perception is like a man pointing at an object which is no longer there. Thus the appearance is the object in so far, and in so far only, as it is present to a mind. That anything appears to us is due to the fact that, when we receive an impression of a particular kind, and respond as if there were an object present fitted to produce it, we thereby use the impression as a sign, and have the object present to our *minds* as the *significatum*. If we get the requisite impression, and behave thus, without the object being really there (as in hallucination), an appearance is presented which of course is not identical with the real thing occupying the place at which

¹ I confess to a good deal of sympathy with the British philosopher who recently wrote: "If any man speak of 'appearances,' let him be anathema."

we look. In either case both the actual occurrence and the character of the appearance are dependent on the organism; and the appearance, therefore, is psychologically *not* identical with the real thing.

(2) The identity which is a fact, and on which the epistemologist must insist as indispensable to the possibility of knowledge, is of a *logical* sort. By this I mean that, for the naïve knower—that is, in advance of epistemological criticism—there is no difference between what appears to him and what exists. He treats what appears to him as being the very existent itself; and, in so far as his knowing is veridical, is right in doing so. Unless he were right, no real thing could ever appear—there could be no knowledge. Even the critic of knowledge, as we have seen, disallows the appearance to the naïve knower only by contrasting it with a conceived real thing which he himself naïvely knows. Moreover he is obliged, in so far as he finds his doubt to be unjustified, to reinstate the appearance in its identity with the real thing; and cannot even justify his own possession of a conception of the real thing without doing so.

An epistemology which, by denying the possibility of erroneous vision, hearing, and touch, allows no place for the criticism of knowledge, and so cannot admit any distinction between appearance and real thing, but identifies the two absolutely and completely, may rightly be called naïve. For it emphasises the logical identity so strongly as to make the psychological explanation (and even, in the end, the very recognition) of awareness impossible. Intuition is absorbed into the intuited object.

15. *Doubt as to the Existence of Real Things.*—The necessity and importance of recognising the element of intent which enters into all cognition has now perhaps been made sufficiently clear. Let us complete the refutation of scepticism by considering further the third aspect of the perceptive act—animal faith. This too, as we have seen, is originally present wherever there is awareness at all, in virtue of the fact that all three aspects depend on the one bodily reaction or attitude. Doubt as to the reality of what is seen, heard, or touched (and, let us add, introspected) can arise only by a second mental act, calling in question the truth of the cognition by which an object has primarily been accepted as real.

The naïve percipient—*e.g.* a young child, or the chick—feels no doubt either that the object exists, or that it really possesses its apparent qualities. No question of any difference between appearance and thing in itself ever occurs to

his mind. He behaves as if he had a faculty of intuition that was infallible. It is the critic of knowledge who brings to light the fallibility of perception; and the psychologist then explains *how* perception can be fallible, by showing that this apparently unimpeachable faculty of intuition is produced by the simplification and projection of introspectable states of the self, which are used as signs of what is external.

The possibility thus undeniably arises that all percepts are erroneous—that they mispresent their objects, or even that they have no objects.

To assume that perceptions have no objects, while continuing to believe in the reality of objects of introspection (a strange lack of consistency as regards fundamental epistemological principles), is solipsism. But no one can really believe that nothing exists besides himself. He cannot believe it even in that secondary, intellectual way which is the way of a sincere philosophy—that is, be convinced that it is so, or seriously doubt the existence of anything besides himself. Much less can he annul that primary belief which is betrayed by his acting as if external things were real—indeed, to do this is strictly impossible. If it is impossible not to betray in everyday life the belief that things exist outside us, the theory of their possible non-existence ought not to be entertained by philosophers. Yet this theory is a necessary implication of every philosophy which asserts the complete identity of physical things with appearances.

16. *Doubt as to the Nature of the Real.*—Though tell-tale action obliges us to confess that something besides ourselves is real, the fallibility of perception makes it very possible to doubt whether external reality in any way resembles the appearances it presents to perception. It is easy to feel this doubt even with regard to such general features of appearance as space and time—as the example of Kant proves.

A circumstance which strengthens and, indeed, suggests this doubt is the peculiar nature of the mind. Mental operations such as perceiving, remembering, thinking, cannot be conceived as in space at all; and the fact that we mentally transcend the present, and gaze across whole tracts of time, apprehending the distant past and future, suggests a doubt whether the mind is even in time. Let us do justice to this doubt by admitting frankly that the mind, in this sense, is *not* in time. But that is because "mind" in this sense is a name for a sum of supersensible functions, functions exercised by the self, which latter *is* in time—and may even be in space.

The temptation to doubt whether time and space are real,

and to base this doubt on the nature of the mind, will be removed when we have a really scientific psychology. It will then be evident that the mind, in the above sense, is not the same thing as the self. The utter difference of category between perceptive appearances, with their externality, and those introspected objects which we call states of the self, will stand forth clearly. It will be found, I think, that these states are *spread out*, as they have to be in order that we should see, by means of them, a great number of objects at once, or be able to turn our attention from one sort of bodily sensation to another; that even auditory sensations, tactile sensations, sensations of warmth and cold have a certain voluminousness which is due to their being spread out, and owe their apparent unity to the fact that, in being projected, they are also simplified, many of them at once being used to bring before us a single external event or state of our bodies. In short, introspection, instead of appearing to reveal an existent that cannot be in space, will confirm the testimony of perception that reality is spatial. For that the self is in time we are not likely really to doubt.

Thus the self will take its place again as a part of the natural world, from which it ought never to have wandered.

17. *Mind and Body*.—Are we, then, dependent wholly on animal faith for our assurance that the real world is spatial and temporal, and that things are (in these respects at least) very much as they appear to be?

Without animal faith we cannot stir a step. But, when once we have made it our rule of thought to put faith in appearances except so far as they contradict one another, certain relations disclose themselves between states of the self and their objects which prove, by such proof as is here possible, that we are on the right track, and that, in introspective knowledge at least, the thing known may be presented with a fair measure of correctness by the appearance. To make this clear, I must first say a word about the relation between the self and the organism which is implied by our analysis.

Since perceptive appearances, brought before us as they are by a process of sign-using, do not necessarily present their objects with entire correctness or completeness, and the real things may accordingly have different attributes or a different nature from those which appear, it is quite possible that the real thing which appears to us as the brain-process (which *would* appear, that is, to an anatomist inspecting it thoroughly, during life) is the self. Now, if we put faith not only in the *that* but in the *what* of apparent things, it follows

that the purely physical relations between the brain-process and the rest of the physical world are a trustworthy key to the relations existing in reality between the self and what lies beyond it. It follows, furthermore, that if, in introspection, there are physical relations between the nerve-process correlated with the introspected object and the nerve-process correlated with the introspecting subject, which are such as to guarantee the identity or the complete similarity of subject and object—that is, of the state here used as a sign, and that of which it is used as a sign—this, again, would throw a welcome light on the possibilities of introspective knowing; and might lead us to conceive it as well-nigh infallible intuition.

Using these criteria, we see at once that sense-perception, besides being very externally related to its object, must needs present this object by means of a state of the self so different in its constitution from the real thing presented, that our knowledge of the latter must necessarily be largely symbolic. Perceptive knowledge of things is sufficiently veridical for the needs of practice: that is the utmost we can say. Introspective awareness, on the contrary, is presentation of a state of the self either by means of itself, or by means of another state of the self, an image, almost exactly resembling it: so that the conditions for truthful and adequate presentation seem here to be fully realised. Even in introspection, however, the reaction or attitude—which is indispensable in order that anything should appear before the self at all—intervenes to modify the real thing and reduce it within the limits of our human power of apprehension, by simplifying it.

18. *The Truthfulness of Introspection.*—Such being the situation, it is evident that introspective knowing is as proper a field for the activity of the critic of knowledge as perception. The critic is a sort of judge. His duty is, after distinguishing the different aspects—existence, nature, attributes, qualities—which the introspective appearance presents, and taking due account of the processes, such as simplification and placing, by which the character of what appears is determined, to pronounce, with regard to each of these aspects in turn, whether it is to be considered as really characterising the thing.

(1) That the self *exists*, and exists at each moment in a particular state, there can be no doubt.

(2) All introspective appearances reveal a certain fundamental nature, which we may call *feeling* or *sentience*. If appearances are brought into being by the use of our states

as signs, these states will not lose their nature by being used as signs, or being simplified and projected, but the nature will still be obvious in the appearance. It is obvious even in perceptive appearances—light, sound, odour, warmth and cold—and it is because they have this nature in them that they are given to the self, so that we say, “*I see, I hear,*” etc. Only a self consisting of sentience can use the word “*I.*” As projected, this sentience forms the apparent being of objects, and, when we perceive without introspecting, we overlook or ignore its nature as sentience: when we take account of this nature, we recognise that it is we who perceive. This nature, then, which is present in all appearances, and which perceptive appearances have in spite of their projection, must be the true nature of the self, the nature which makes it possible for anything to appear.

(3) Introspection also reveals two attributes, which there is every reason to regard as true attributes of the self. One of these is *intensity*—every introspected feeling is more or less intense; and if, as our theory holds, the correlated nerve-process is the same existent looked at from a more external point of view (that is, through the sense-organs of an anatomist), evidently perception and introspection here confirm each other. The other attribute is that spread-outness or *extensity* which we have seen reason to believe a characteristic of all feelings; and here again, it is evident that an existent which can appear in the form of a nerve-process must needs be spread out.

(4) The non-veridical elements of introspective appearance are particular *qualities*, which, as we have seen, are products of simplification; and, in the case of visual and auditory sensations, *externality* and definite *magnitude*. When, for example, the expanse of the sky appears to be external to us, and to have a magnitude inconsistent with its being within the body, these features of appearance are due to projection.

To sum up: the situation in introspective awareness is such as to justify the belief that, in the respects mentioned, we have cognised this small portion of reality truly; indeed, with a fullness of truth not possible to us in the case of external objects. On the other hand, we have found in this portion of reality attributes—intensity and extensity—which make it appear to be indeed a part of Nature: for what is intensity but that which physicists call energy, and what is extensity but space? Thus our analysis has really succeeded in reducing all reality to a single system; the relation of the brain-process to the rest of the physical world has furnished the key to the relation of the self to the rest of reality.

19. *Awareness not a Datum of Experience.*—This view of the self calls for a sharp distinction between *awareness* and *sentience*: the former being the function by which things are present to us (awareness is always *of* something, it is a "bi-polar" relation between the self and an apparent thing), and sentience that nature in the self which makes the presence of things possible.

This account of the matter cannot be fairly controverted without offering some alternative theory of awareness. Neo-realists, I think, have not been sufficiently explicit on this point. It is important that they should explain not only what awareness is, but also how our knowledge of it is obtained.

The traditional theory that it is a mysterious faculty of self-transcendence, difficult to observe at the moment of our being aware—"diaphanous"—and yet perceptible, may, I suppose, be taken as obsolete. No psychologist ever looked for "consciousness" in this sense with a more keenly observant eye than William James; but, after years of search and reflection, he came to the conclusion that it is "the last faint rumour left by the Soul on the upper air of thought". Though he failed to explain what awareness is, he proved, I think, convincingly that it is not a possible datum of experience. It may be worth our while to consider briefly why this is so.

At the moment when anything appears, we are aware solely of *what* appears, not of its appearing. Awareness is not empirically given at the moment when we are aware. Not being empirically given at that moment, it cannot become given at any later moment, through memory or retrospection or introspection. Introspection discloses something quite different, namely, sentience. The reason why awareness can never be given empirically is because it is a functional relation between the self and an appearance; which last fills the entire field of view, to the exclusion of the relation or function by which it appears. It is the same as the reason why (simply in a physical sense) a man can never see himself see.

Now with this evident truth our theory of the self and of awareness is in perfect accord. All other theories of awareness, it seems to me, either reduce it to a purely physical relation or suppress it altogether. But awareness—being a transcending of time or space or both by our own life—is essentially non-physical in its nature; and to suppress it (or to absorb it into the appearance, so that the latter does not appear to some one) is absurd. Only the theory above offered,

it seems to me, satisfactorily unites the transcending and the life.

20. *The Futility of Agnosticism.*—The mystical notion of "consciousness" was one stumbling-block in the way of a gnostic theory of knowledge; another is the denial that introspection reveals the spatiality of the self. Nature is thought to be so mysterious, and to have so cunningly devised the functions of vision, hearing, and touch with which she has provided us, that any assumption that things really are as our senses reveal them to be—even in respect of space and time—is illicit. We may only assume that it is wise to *think* of them thus; and, above all, to behave as if they were thus. But to think that our thoughts of Nature are true is forbidden us. Thus the dear creature has effectually pulled the wool over our eyes.

This, I confess, seems to me gratuitous doubt. What is more, it counts without introspection. Such a view is defensible only on the basis of that one of the two psychological space-theories which is called "empiricist"; the space-theory underlying our own view is, of course, the "nativist." The question here, though complicated by epistemological difficulties, is one of empirical fact, to be decided by observation: are sensations, in our sense, extended, or are they not? I need not repeat my own view.

If traces of extensity are to be found in all our sensations, and if introspective knowing takes place in the way above described—that is, by using a state of the self as a sign of itself—it follows that introspection of visual sensations, and consequently perception through visual phenomena, gives us an authentic view, a view amounting to infallible intuition, of the nature of space-relations as they exist in external reality. Doubtless, in perception, these relations are "contracted" by the process we have called simplification, but that need not obscure their nature. Doubtless, again, the space-relations in our sensations, as given to introspection, are still more contracted and covered up by the same process—just as time appears in a simplified and shortened form in our awareness of the "specious present". But, in being simplified, neither space nor time is altered in its essential nature; and by means of a little analysis and discrimination we can discern the reality beneath (or rather *in*) the appearance.

Why should we imagine real space and time to be wholly unlike space and time as they are known to us? Must not real space, in any case, be tri-dimensional, and time perpetually moving? If any reader thinks that reality is not in time and space at all, I cannot argue with him; I think he must be

using the word "reality" in a different sense from that in which I use it.

One last objection to this gnostic theory of knowledge deserves a word. It may be urged that the human faculty of knowing has come into existence in so haphazard a way that our confidence in its validity is hardly justified; that for a being patched together out of clods and humours to assume that he knows things as they really are savours of presumption. This is an argument of an empirical kind, and based on the theory of evolution. But this argument may easily be turned about in the opposite sense, and made to justify gnosticism. For, according to our theory, it is precisely because we—that is, our selves—are integral parts of Nature, and made of none but natural materials, and because the operations connecting us with the other parts of Nature are conducted in a thoroughly natural manner, that we have reason to regard our confidence in knowing as justified. Nature would have difficulty in hiding from beings who are parts of herself. If we doubt the possibility of knowledge, it is we who have pulled the wool over our own eyes.

IV.—THE NOTION OF DUTY (I)

By W. D. LAMONT.

I.

THE problem of obligation, like the poor, is always with us; and so, with the brief explanation that after criticising one or two current views I shall attempt in this paper to defend a more or less Kantian position, I proceed at once to work my way into the subject of discussion.

In practical life we commonly distinguish between the 'morality' of an act and its 'success' in attaining the end it was meant to attain; or between a 'good' man and a 'successful' man. *E.g.*, we say, "Yes, I think that if you want to kill A.B.'s chance at the municipal election, you *ought* to publish that letter, but personally I think you *ought not* to publish it.—It would be an unfair and immoral thing to do". 'Ought' in the first sense seems to refer only to the best means of bringing about a certain result. In the second case it *seems* to refer to something different; and hence we say that an action may be admirable from the point of view of skill and strategy, while from the moral point of view it ought to be unhesitatingly condemned.

But, we may ask, is there any real difference between the meanings of the first and second 'oughts'? This is one of the questions which the moral philosopher must attempt to answer; and the alternatives here before us can be stated quite simply. We have to ask whether (a) there is a difference of principle between 'morally right' on the one hand, and 'successful,' 'expedient' or 'skilful' on the other; or whether (b) they are the same in principle, being contrasted (when they are contrasted) only by reference to their *ultimate* results—whether, in short, we do not mean, in the instance given, that while by publishing the letter a certain result will almost certainly be attained, it will be attained at the cost of sacrificing a much higher and greater good which we ought to seek or do as a matter of fact seek.

It is a matter of the first importance which of these

alternative views we hold to be the true one. If we hold to the second, and say that "You ought to do *a*" *always* means "*a* is the best, or the only, way of bringing about *b*," then we shall conceive of the 'principles of ethics' in some such way as G. E. Moore does. On the other hand, if we agree with Kant and Croce, and say that the 'moral' judgement is not a judgement about means to a given end, we shall say (with Kant) that Moore's ethical theory is falsely based upon the acceptance of the Hypothetical Imperative as ultimate; or (with Croce) that Moore is dealing not with Ethical Principles but with Economic Principles.

The question here raised—*i.e.* the question as to the significance of the 'moral ought'—cannot be settled at once. It raises others, and involves at least some answer to the four following questions: (1) What do we mean by calling a thing 'good'? (2) Is there an Absolute Good, or End, which all men do or should seek? (3) Is it the same thing to say that an act realises an Absolute End, and to say that the act is *morally right* and that it is our 'duty' to do it? (4) What do we *mean* by 'Duty'?

It is with question (4) that I shall be mainly concerned in this article; but, as we shall see, the analysis of the notion of duty gives some indication as to how the other three questions ought to be answered, and it implies a very definite answer in the negative to the third.

My main purpose in this paper, then, is to examine the notion of duty, and see what it implies. But before we begin our analysis of this conception, we must deal at some length with certain widely held but erroneous views as to the significance of the 'moral judgement'. Reference is constantly made to the 'Moral End,' and the 'Moral Ideal'. Now obviously the term, 'Moral End,' presupposes a quite definite answer to the question, "What do we *mean* by Duty?" It presupposes that the morality or immorality of an action is determined by reference to some End which it realises or fails to realise. It appears to me that to presuppose any such thing is to make an absolutely unwarranted assumption; and in the first part of this paper, therefore, I shall put the question: Are we justified in assuming that the criterion of the *morality* of an action is that it realises an *end*; and are we justified in supposing that because the moral *judgement* claims to be unconditional, it therefore implies an unconditional or absolute end?

It will be plain, I think, that here we are raising a double question, (1) Have we any ground for supposing that there is an absolute end, and (2) Does the moral judgement imply an

end at all? These two questions are quite distinct, and if we speak uncritically about the 'moral end' we are assuming a definite answer to the second; and, indeed, it is possible that the first is often answered in the affirmative because the second has never been properly raised.

(1) *Is there an Absolute End?*

"What is the moral end?—Pleasure? The greatest happiness of the greatest number? Self-realisation?" It seems to me that if the nature of the moral judgement had been really recognised, the term 'moral end' would never have appeared in ethical treatises. I do not think it possible to prove that there is no such thing as an absolute, ultimate end; for individuals differ very greatly in the extent to which they mould all their everyday acts in the light of a single directing purpose, and it is conceivable that a few persons may consistently live and act to achieve an end which is for them absolute and ultimate. But even admitting the possibility of a person's directing his whole life in the service of an absolute end, we must not assume that this gives the clue to the meaning of the moral judgement and the conception of duty.

What has led so many philosophers to adopt the view that an absolute end is implied in morality? Certainly it would not have been so generally held if the moral judgement did not *seem* to demand it; and I imagine that the reasons why such thinkers as Green, Bradley and Bosanquet do adopt this standpoint in ethics will become fairly evident if we consider the unsatisfactoriness of a view which is in many respects widely different from theirs. Let us consider the ethical theory of G. E. Moore, as it is expounded in his *Principia Ethica* and in his *Ethics*.

According to Moore, 'good' is a simple, indefinable quality predicated of a number of things in the universe. "'Good' is a simple notion, just as 'yellow' is a simple notion; just as you cannot, by any manner of means, explain to anyone who does not already know it, what yellow is, so you cannot explain what good is" (*P.E.*, p. 7). Only a complex object or notion, such as 'horse' or 'triangle,' can be defined. When you are dealing with "notions of that simple kind [yellow, good, etc.] out of which definitions are *composed*," the power of further definition ceases. Thus Moore will accept no such statement as, "'good' means 'desired' or 'willed'".—Good is indefinable.

It follows from this, Moore thinks, that you cannot go on

to *prove* that anything is absolutely good, just because you cannot define 'good,' and then go on to say: The definition of Good is also the definition of 'X,' and therefore 'X' is the Absolute End for all men. But, according to Moore, although you cannot define what Good is, you can, in a sense important for ethics, define those things which are intrinsically or ultimately good, and distinguish them from those which are not. You can go over the list of all the things which men have taken to be good, and you can distinguish between those things which are 'good-as-means' and those things which are 'intrinsically-good'. Now Moore believes that there is a fairly accurate method for discovering whether a thing is intrinsically-good or not. "By calling one effect or set of effects *intrinsically better* than another [we mean] that it is better *in itself*, quite apart from any accompaniments or further effects which it may have. That is to say: To assert of any one thing, A, that it is *intrinsically better* than another, B, is to assert that if A existed *quite alone*, without any accompaniments or effects whatever—if, in short, A constituted the whole Universe, it would be better that such a Universe should exist, than that a Universe which consisted solely of B should exist instead" (*Ethics*, p. 57). When you have found by this method those good things which stand the test, you can then go on to affirm what your *duty* is, or what you *ought* to do, or what actions are *right*—actions which will produce these intrinsically-good things. If the intrinsically or ultimately good things (I do not think it necessary here to distinguish between Moore's 'intrinsic' and 'ultimate') are X, Y, and Z, then it is your *duty* to act in such a way that your actions are means to the realisation of X, Y, and Z.

There are one or two questions which may well be raised with regard to this theory. In the first place, it may be argued that Moore's simple method of discovering and marking off intrinsically-good things involves an assumption which a great many philosophers would not accept. For myself, I cannot conceive of the term, 'good,' retaining any meaning if the supposed 'good thing' constitutes the whole universe; and therefore it seems to me that the distinction between what is and what is not intrinsically-good is to be made, on Moore's view, according to an impossible criterion. It is barely conceivable (and no more) that a thing could be yellow, or black, or white, if it existed quite alone, but I cannot conceive of anything being 'good' under such circumstances. It is obvious, of course, that a thing which is 'good-as-means,' or 'good for—,' could not have this 'quality' if

it existed quite alone, or formed the whole universe; being 'good for—,' or 'good-as-means,' it implies an *other*—the end for which it is good-as-means. It is not so obvious that 'intrinsically-good' is a meaningless term when applied to that which exists quite alone, but there is at least reasonable suspicion that this is the case. A point insisted upon time and again by Spinoza and Bosanquet is that the predicates 'good' and 'evil' become meaningless when applied to the whole, just because it is the whole. Certainly the whole, or the universe, may have qualities in virtue of which it would be called good or bad *if* there was someone to whom it stood related, and for whom it would be good or bad; but it is impossible to understand how a thing out of all relation to anyone could be said to be good or bad. To say that a thing is intrinsically-good, if, considering it quite alone (as the sole reality), you would prefer its existence to its non-existence, assumes that a thing *could* be good or bad under such circumstances; and the assumption appears to me to be quite as unwarranted as the assumption that a judgement could be true if it existed quite alone. A judgement is made by a mind about something else, and, whether a true judgement 'corresponds' or 'coheres,' the term 'true' is quite meaningless if the judgement is considered quite apart from everything else. Similarly, it seems to me, to have any significance, the term 'good' implies, at the very least, someone for whom the thing is good.

'Good' does mean something very much the same as 'that which is desired' or 'that which satisfies desire'. When we are told by Moore that one thing is *intrinsically better* than another when it is better that the one should exist (quite alone) than that the other should exist (quite alone), are we not entitled to ask, "But how do you tell whether the first thing is better than the second? What is it which makes you call one thing better than the other? What do you *mean* by 'good,' 'better,' 'best'?" If it be replied that you just *see* a thing to be good, and that you just *see* one thing to be better than another, this does not necessarily show that the 'quality,' 'good,' belongs to the object apart altogether from your desiring.

To fasten upon a point like this may seem mere quibbling, and yet I think the point rather an important one. Assuming that a thing may be called good out of all relation to any being for whom it is good, one can understand Moore's criticism of the view that we call things good because we desire them. But the assumption does not seem to be valid. As I understand his view, Moore holds that 'good' must be an

objective quality incapable of 'subjective' definition, if there is to be any standard or common measure for our 'judgements of value'. But it seems to be the case that if good is an indefinable quality of an object, which you just apprehend or just do not apprehend, there is no common ground upon which we can meet, if you say that A is intrinsically better than B, and I say that B is intrinsically better than A. We cannot argue about the matter. And therefore the 'objectivity' which Moore *really* wishes to preserve for our judgements of value is made impossible on his theory. Curious as it may seem, if you regard 'good' as an *objective quality* you destroy the 'objectivity' of our judgements of value. Only by defining 'good' *subjectively* can you preserve this 'objectivity' for the judgement of value. Differences in our valuing depend upon discoverable differences in our characters.

And this leads on to my second point of criticism. In some ways it is difficult to believe that Moore really looks upon 'good' as a 'simple notion'. We are told that 'good' is indefinable in the same sense as 'yellow' is indefinable. All right,—I can understand that; but Moore goes on to make a certain distinction, the justification for which is not, on his principles, very obvious. Where does the analogy between 'good' and 'yellow' begin, and where does it end? For that it does end somewhere is surely plain if we are to distinguish, as Moore does, between something which is intrinsically-good and something which is not. One can understand that a good thing, A, should be a means to the realisation of another good thing, B; but it is most difficult to understand why this should make us distinguish between the types of goodness possessed by A and B,—between what is good-as-means and what is intrinsically-good. If, in distinguishing between A, as means, and B, as that which A realises or helps to realise, we say that *therefore* A is to that extent good-as-means and not intrinsically-good,—although in *other* respects it may be intrinsically-good,—are we not implying that 'good-ness' is something very different in kind from 'yellow'?

Let me try to put this point a little more clearly. Moore accepts an extremely significant distinction which we commonly draw between 'good' things—those which are good-as-means, and those which are intrinsically-good; again Moore holds that if a thing is good-as-means it must be means to *another good thing*. Now I can see that one yellow thing could be means to another yellow thing—*e.g.*, a banana could be the means of keeping a Chinaman from starvation and death;—but I do not think we should say, on that account,

that the Chinaman is *yellow-intrinsically* and the banana *yellow-as-means*. Again a banana need not necessarily keep only a Chinaman from starvation and death. It could also be a means to keeping a negro or an Englishman alive, I suppose. Or a yellow hammer could be means to the bringing into existence of a yellow box; but we should not therefore say that the hammer is *yellow-as-means*, and the box *yellow-intrinsically*; neither should we deny that the hammer could be a means to the bringing into existence of a black box or a white one. Why then does Moore feel justified in distinguishing between what is and what is not intrinsically-good, and why does he suppose that if a thing is good-as-means it must be means to something which is also good? I do not suggest that the distinction between good-as-means and intrinsically-good, and the assumption that what is good-as-means must be means to another good thing, are wrong. In point of fact, like most men, I accept both the distinction and the assumption. What I cannot see is how this acceptance is to be made intelligible and justified, if it be true that 'good' is a simple indefinable notion like 'yellow'.

I have considered the point that the analogy drawn by Moore is between the *quality* 'good' and the quality 'yellow,' whereas the lack of analogy noted in the last two paragraphs is a lack of analogy between *our use of the words* 'good' and 'yellow'. But this does not seem to me to get over the real difficulty in Moore's view. If we *use* the word 'good' in a sense different from our use of the word 'yellow,' does not this imply that by 'good' we *mean* something very different from a "quality, like yellow"? If the difference in our use of the words is admitted, and if there is no obvious objective quality, 'good,' in a good thing, in the same way as there is an obvious objective quality, 'yellow,' in a yellow thing, it does seem to me important that the implications of our distinction between 'good-as-means' and 'intrinsically-good' should be worked out.

At any rate, when Spinoza and certain other philosophers say that 'you call a thing good because you desire it,' they are dealing with rather an important problem; and Moore's criticism of this 'subjective' definition of 'good-ness' has tended to distract attention from the importance of this Spinozistic approach. Suppose we agree that good and yellow are analogous, in the sense that, if you have not seen yellow things or valued things, good and yellow cannot be explained to you, surely it is still legitimate to say that just as we may try to describe 'the physical equivalent of yellow' and 'state what kind of light-vibrations must stimulate the

normal eye in order that we may perceive it,' so we ought to be able to do the same thing for 'good'. Moore's discussion is important and valuable. In his treatment of the notion of Good, he has pointed out certain ambiguities in the term, and he has shown quite clearly that the failure to notice these ambiguities has led to serious philosophical errors in the past. But he has himself erred in arguing as if the search for a 'definition' were irrational.

It is rather curious that Moore's ultimate results are practically the same as they would have been had he defined 'good' as 'that which satisfies desire'; because, not being able to prove the existence of an absolute end, he has yet undertaken to say what things are intrinsically-good. His conclusion amounts to this that whatever you prefer, or, in his words, 'whatever had better exist rather than not exist, or rather than something else,' that is the thing which 'right' action aims at securing. Of course he asserts that to think a thing good does not necessarily mean that it is good. But since, at any given time, what you do *think* good is what you do think *good*, at any given time it must be your duty to strive to realise that which you prefer above everything else.—And this is the analysis of 'morality'.

Now it is well known that many philosophers feel dissatisfied with this 'ethical theory'. Plato would hold that what is 'duty' for Moore is really only 'prudence'. Plato felt that 'duty' is something very different from 'prudence,' and one of his great difficulties was to give a satisfactory account of the difference.

It is extraordinarily significant that, in the *Ethics*, Moore himself makes a slight departure from the position of the *Principia Ethica*. In the *Principia Ethica* he had said that 'right action,' 'duty' and 'expediency' are not different from each other. All these terms refer to the act which is a means to the realisation of some end which you just accept as intrinsically-good. But in the *Ethics* he is not so definite upon this point.

First of all, in Chapter I. of the *Ethics* he distinguishes between what is 'right' and what is your 'duty'. The distinction, as he draws it, is not really important, because it simply amounts to this: Where there are many different actions, all of which are 'right' in the sense that they would all produce an equal amount of good, no *one* of them is your duty, although it is your duty to choose *some* one of them. But where *one* particular action would produce more good than any other, it is your duty to do it. As I have

said, the distinction is not important. It simply points out that you ought always to act 'rightly'. Sometimes there may be several ways of achieving your end, and sometimes there may be only one way. If there are several, you ought to take one of them; if there is only one, you ought to take it. The discussion of this point occupies a few pages, and at first sight it is difficult to understand why it should have arisen. But it is significant that Moore should try to distinguish between what is 'right' and what is your 'duty'; and that the distinction does indicate some departure from the position of the *Principia Ethica* becomes fairly certain when we look at Chapter V. of the *Ethics*.

In Chapter V., Moore raises the question whether it is the *actual* consequences of our actions which determine their 'rightness' or 'wrongness'. He inclines to the view that it must be the actual consequences. Of course he sees that certain objections may be raised against this view, and he says: "Many people are strongly inclined to hold that ['right' and 'wrong'] do not depend upon the *actual* consequences, but only upon those which were antecedently *probable*, or which the agent had *reason* to expect, or which it was possible for him to *foresee*. They are inclined to say that an action is *always* right, whatever its *actual* consequences may be, provided the agent had reason to expect that they would be the best possible; and *always* wrong, if he had reason to expect that they would not." "But yet," he continues, "I am inclined to think that even this objection can be got over by reference to the distinction between what is right or wrong, on the one hand, and what is morally praiseworthy or blameworthy on the other. What we should naturally say of a man whose action turns out badly owing to some unforeseen accident when he had every reason to expect that it would turn out well, is not that his action was right, but rather that *he is not to blame*. . . . But, even if we admit that he was not to blame is that any reason for asserting also that he acted rightly? I cannot see that it is; and therefore I am inclined to think that in all such cases the man really did act *wrongly* although he is not to blame, and although, perhaps, he even deserves praise for acting as he did. . . . And we are thus committed to the paradox that a man may really deserve the strongest moral condemnation for choosing an action which *actually* is right. But I do not see why we should not accept this paradox." (*Ethics*, pp. 192-5).

Now this 'paradox' brings us face to face with one of the chief problems in ethics. Moore does not at all ask *why* we

have to distinguish between what is 'right' and what is 'morally praiseworthy'; and surely that is the whole point of Plato's distinction between 'prudence' and 'justice,' Kant's 'hypothetical' and 'categorical' imperatives, and Croce's 'economic' and 'moral' activities. Moore may be right in saying that the ultimate test of our actions must be their actual consequences—he may be right, and he may be wrong—but it is plain that neither in the *Principia Ethica* nor in the *Ethics* has he grappled with the problem which arises when we distinguish between 'Morality' and 'technical rightness.' In the *Principia Ethica* he seemed to think that there is no real difference between the two; in the *Ethics* he does distinguish between them, but makes no attempt to show the significance and ground of the distinction. We are left with a paradox.

The points I wish to bring out in the foregoing discussion of Moore's theory are these: Starting from the position that 'Good' is an indefinable quality, and attempting to answer the question, "What *is* good—what things can have this quality truly predicated of them?" Moore finds that you cannot discover any *absolute end* from which all other ends derive their goodness and value. What you find is that there are many ends, and that these ends do not derive their goodness from the fact that they are means to something else. But Moore's argument reveals another striking fact (which of course is not admitted by him)—the fact that what these ends are does, in the last resort, depend upon *your* preference. Now if an action is 'right' in so far as it realises one or all of these intrinsically-good things, then obviously the rightness of an action is *conditional*—it is conditioned by the sort of ends or the kind of things which you prefer to adopt. And here the important point with regard to the moral judgement arises. If, as in the *Principia Ethica* Moore holds, 'right,' 'moral' and 'expedient' are all practically synonymous terms, then the moral judgement must be a conditional one—"If you regard X, Y and Z as intrinsically good, then your duty is to do so and so". But if, as in the *Ethics* Moore seems to say, 'morally praiseworthy' is not the same as 'right' and 'expedient,' then what is the criterion of 'moral praise'? Morality is, for all we have been told to the contrary, either conditional or a mystery.

The demand for an Absolute End arises when the unsatisfactory points in such a view as Moore's become apparent; and, as we can see from the argument of the Second Essay in the *Ethical Studies*, the search for an Absolute End begins in an indirect way—by an investigation into the nature

of Goodness, and therefore by an implicit denial of its indefinability.

The moral judgement seems to be, in some sense, unconditional; and it seems to be made according to some standard which is applied by the learned and the unlearned, by young and old. There *seems* to be good ground for believing that the criterion of the morality of an action is whether it realises an Absolute End. The argument for an Absolute End appears to run something like this: When the 'rightness' of your action depends upon what End, X, Y or Z, you do as a matter of fact prefer to aim at, then duty is conditional. But if duty is to be unconditional, and if the moral judgement is to take the form, "No matter what you desire, and no matter what you would like to do, *your duty is to do so and so*," then this unconditional judgement implies an Unconditional End—an End which you *do* absolutely strive for, or which you *ought* absolutely to strive for. 'There being an absolute end, then, what is it; and how have we to discover what it is?'

Obviously, the assertion that there is an Absolute End you *ought* to strive for, is going to give some difficulty in the sense that it will be very hard to say '*why* you ought to'. The question, "Why ought I to strive for A?", is fundamentally the same as the question, "Why ought I to do so and so, or act in such and such a manner?". If, therefore, you say, "You ought to do so and so, because you ought absolutely to seek the End A," the question inevitably arises, "But why *should* A be the Absolute End for me?". Ultimately, it seems, you have to answer the question, "Why ought I?" by the assertion, "You do as a matter of fact seek A as your Absolute End". From the same essay in the *Ethical Studies* we can see that Bradley recognises this point quite clearly; and indeed we find here at least one explanation of the prevalence of what Moore calls the 'naturalistic fallacy in ethics'. We find that all, or practically all, ethical theorists who stress the demand for an Absolute End, attempt to explain the character of the End by trying to show us what we do as a matter of fact seek, and what as a matter of fact we cannot help seeking.

Now the two principal theories which have resulted from this way of approaching the problem are Hedonism and the theory which we may best describe by the name Self-realisationism. The theory which holds that self-realisation is the absolute end, begins, not by asking the direct question, "What is the End?" but by asking "What do we mean by 'Goodness'?" It thus holds, in opposition to Moore, that Good,

or Goodness, is in some very important sense definable, and it starts out to supply this definition.

Unfortunately for itself, however, it confuses the questions: "What (thing) is good?" and "What is *good* (goodness)?"—it confuses the two questions, "What is the end or object aimed at?" and "What do we *mean* by calling things good?" Self-realisationists seem to argue as if the discovery of why we call things good, or as if an analysis of value and valuation, were at the same time the discovery and definition of that which we do value or think good.

How this confusion arises I shall attempt to show in the following paragraphs. Starting out with the idea that value is, in some way, subjectively determined, the Self-realisationist points out quite correctly that the nature of Goodness cannot be fully understood unless we have some knowledge of the nature of our 'valuing'. As Bosanquet says, objects are not labelled 'good' and 'bad' independently of our interests, purposes and needs. Good and bad things have these qualities only in relation to persons, and we do not desire things because they have a label 'good' attached to them; rather we desire them, and then attach the label.

We must, then, turn our attention to the nature of desire, Bosanquet says; and in so directing our attention, we see that desires are not all cut off from each other. A desire can, and generally must, be an embodiment of 'Will,' in the sense that it is not a *mere* desire without further significance. Our desires are, generally speaking, particular directions in which our will, or whole self, turns at different moments. Our desires do influence each other, and do help to determine each other's characters. Our desires, and therefore our valuations, do have reference to some at least partial subjective unity of will.

Now, having quite rightly established this point, that desires are to some extent connected by unity of purpose, Bradley and Bosanquet go on to say: *Therefore what we desire is not so much the fulfilment of the particular desire as the fulfilment of the general purpose*; and since we must assume that different general purposes are themselves connected, what we ultimately think good is the fulfilment, or realisation of, the *whole self*.

This last paragraph, and in particular the part italicised, marks the point at which Self-realisationists begin to confuse the questions, "What is *goodness*?" and "What is *good*?" The precise nature of this confusion is not easily stated; but in general terms it involves the mistake of supposing that *what you desire is the fulfilment of your desire*. Up to this

point, Bradley and Bosanquet have been showing that the 'goodness' of one thing must be connected with the 'goodness' of other things (because one desire is connected with other desires),—and that is all. But falsely imagining that they have been showing more than this, they go on to say that self-realisation is ultimately *what* you seek. They state this unity of purpose, *exhibited in* your desiring, in terms of *that which* is desired. Self-realisation, for these writers, really means two different things, which nevertheless they try to treat as one, just as Pleasure for the Hedonists means two different things which they do not distinguish. On the one hand, Self-realisation means "the attaining your end," and, on the other hand, it means "the end you seek to attain". It is in the endeavour to treat these two as one that Bradley is driven to hold the untenable doctrine that morality, the end, and the act cannot really be distinguished.

Bradley has a passage in support of his view that "The End is Self-realisation" which is well worth quoting. "Let us show that what we always do—because we cannot do anything else—is realise ourselves. What we always realise is our ends or objects of desire, and all that we can desire is self" (condensed statement, *Ethical Studies*, 2nd edition, p. 66). How can Bradley have allowed himself to set forth any such argument? He has slipped into the old fallacy so obvious in Hedonism—the fallacy of confusing 'the pleasure at which you aim' with 'the pleasure you get in attaining it'.

"What we always realise is our ends or objects of desire." This of course is not strictly true, and in the actual statement from which I have condensed the above, Bradley inserts a qualification. Sometimes we fail in our endeavours and 'realise' precisely what we did not want. *E.g.*, I turn on a tap to fill a pail with water, and the water, instead of going into the pail, soaks my legs and feet. In such a case I certainly am not realising my 'end' or 'object of desire'. What then does Bradley mean? All he can legitimately mean is that *when* we realise our ends or objects of desire—they are realised, and *we* are *satisfied*. It is surely illegitimate when he goes on to speak as if the 'satisfaction,' and not the putting of the water into the pail, were the object aimed at. Of course it is true that in some (ambiguous) sense you *can* act for self-realisation, or self-satisfaction; but it is absolutely vital, if we are to avoid gross errors, to distinguish this 'satisfaction' from the 'end aimed at'. But because Self-realisationists do not keep this distinction consistently before their minds, they are, theoretically speaking, on a par with Hedonists. Just as Psychological Hedonism moves from the

assertion that the *achieving* of any particular end gives us pleasure, to the assertion that therefore Pleasure is the supreme *end*, so Self-realisationists move from the assertion that any particular good thing achieved 'realises the self' (fulfils a purpose of the self) to the assertion that *therefore* the supreme end is self-realisation.

Writers such as Green have supplied an argument against Hedonism which, as has been pointed out more than once, can be turned with equal effect against all Self-realisationists including Green, Bradley and Bosanquet. As against Psychological Hedonism, Green points out that, even assuming for the sake of argument that Pleasure is the end, we must distinguish between Pleasure in that sense and the 'pleasure' we get in attaining our Pleasure. In the first case Pleasure is an end, object aimed at, *what* we desire; in the second case 'pleasure' is a subjective condition—a condition of the self which results from our having attained what we desired. If you try to identify Pleasure with 'pleasure,' you can only do so if you believe that the assertion "As a psychological fact you are pleased when you attain your end" means exactly the same as the assertion "Your object or end was the being pleased in the attaining of your object".

Now this same argument applies as against Self-realisationism. In seeking ends, or an end, you are seeking something which if realised will satisfy your desire. But the satisfaction is *not* what you aimed at. To suppose that it *must* be, is to confuse the psychological conditions involved in willing and desiring with ends willed or desired. What Bradley 'proves' must be the End, is not an end at all. If he has proved anything, it is that there are certain psychological conditions involved in our having ends,—that we call things good because we desire them, and that desires are all connected up with each other subjectively in a more or less harmonious system.

In this connection, it is extremely illuminating to notice the chief bone of contention between the Individualistic Hedonists and the Self-realisationists. Accepting this position, that a subjective condition of ourselves—self-satisfaction—is what we all aim at, Self-realisationists nevertheless combat the conclusions of Hedonism; and the way in which they do so proves their affinity with Psychological Hedonists as the supporters of an Egoistic ethical theory. Since our supreme end *is* self-satisfaction, they say, but yet since morality is real, then the ground of the possibility of morality must be this: The Real Self must be, not the particular self, but rather a self which includes you and me and Tom and

Dick and Harry. A close study of Bosanquet's works shows how hard he strives to make this doctrine of the 'Real Self' intelligible, and how lamentably he fails.

Let me try to state briefly the bearing of this discussion on the question of the 'Moral End'.

We were concerned to notice two kinds of ethical theory, that of G. E. Moore which we may call Utilitarian, and that of Hedonism and Self-realisationism which is obviously Egoistic. The Utilitarian theory begins with the assumption that 'morally right' actions are those by whose means we produce some intrinsically-good thing, and it then goes on to ask, "What are those ends to be achieved?" The answer is very unsatisfactory because it amounts to this: they are the things which, after deliberation, you decide are better than, or preferable to, any other ones.

Accepting the assumption that the criterion of moral action must be that it realises a given end, and yet revolting against the suggestion that the moral judgement is a merely conditional judgement, many philosophers have inclined to the view that there must be an Absolute End. I have been concerned to examine one of these 'Absolutist theories,' and if my conclusions are correct, it begins by analysing 'goodness,' and not by asking "What things *are* good?" It fails in the attempt to show that there is an Absolute End, much more in the attempt to show what this End is, because it confuses its issues and supposes that the question with which it began will supply the answer to the question "What *is* the End?"

So far as it goes Utilitarianism is much more logical in what it asserts, but it does not go nearly far enough to be an ethical theory. It recognises quite rightly that ends must be objective—in the sense that they are not the 'satisfaction felt in attaining ends'—but it never recognises properly that the 'value' or 'goodness'—the 'quality' possessed by all ends—does have some subjective reference. And further, just because this theory makes out a very good case for the view that what we seek is *ends* and not an End, it is quite open to the criticism that its ends are ends which we only *may* adopt; and that therefore the 'obligation' to act for their realisation is merely conditional.

Egoistic theories, on the other hand, arrive at the conception of an end which is given, unconditional and universal, by logically invalid arguments. A certain psychological fact about our having ends may be universal and constant (in other words, the Self-realisationist may have shown what we mean by 'good-ness'); but that psychological condition is not an end or object of volition (in other words, the Self-

realisationist has given no answer to the question 'What is good?').

(2) *Does Morality Imply an End?*

The two views examined above have been called respectively Utilitarianism and Egoism. I am not entirely satisfied with these terms, because I do not think that any ethical theory is purely the one or purely the other. Still the terms may stand, because I am concerned mainly with two different *principles* which have been employed in historical ethical systems. As a matter of fact, the Utilitarian principle has been employed by almost all ethical theorists, but the Egoistic has not. The Utilitarian principle is that "The moral judgement upon our acts is a judgement as to whether they do or do not further the realisation of a certain end or of certain ends". It will be clear that Hedonism and Self-realisationism, in adopting Pleasure or Self-realisation as the End, do as a matter of fact adopt the principle of Utilitarianism, as well as that of Egoism.

Now the conclusions to which we have come in our examination of these principles can be stated very briefly in the following way: If you begin with Moore by asking what things have the 'quality' good, you certainly are dealing with *ends*, but, as the whole of Moore's argument tends to show, the most you can do is point out a certain number of particular ends which you may or may not care to adopt. If on the other hand you begin with Bradley by asking what 'goodness' is, you are again conducting a rational enquiry, but you are not dealing with ends; you are dealing with the psychological conditions involved in our having ends.

But, now, supposing we agree that Bradley and Bosanquet have analysed accurately and truly the nature of Goodness; and supposing that Moore has stated accurately and truly those things which are intrinsically-good, is that all ethics is concerned to do? If (a) things are called 'good' because they fulfil our purposes, and if the *best* things are those which meet our deepest and most enduring needs; and if (b) Knowledge, Beauty, Pleasure and certain other things are the things which actually are best in this sense,—has Moral Philosophy answered all its great theoretical questions? Can we now go on to say that 'morality' consists in acting for these; do we now know what our 'duty' is, and what 'Duty' means? Most theorists would seem to suppose that this is so.

When I say 'most theorists,' however, I do not mean

'all'. In fact there are one or two philosophers who would hold that the greatest task of the moral philosopher has not yet been begun. In rejecting the Problematical and the Assertorial Imperatives, Kant virtually rejected the Utilitarian and Egoistic principles as possible principles for the explanation of our conception of 'moral duty'. As to the Problematical Imperative, we need not say much. It takes the form, '*If* you want A, you ought to do B'. With regard to the Assertorial Imperative, the way in which Kant describes it seems to indicate that by 'Happiness' he meant something the same as Psychological Hedonism and Self-realisationism mean by Pleasure and Self-realisation. Happiness is an 'end' which we all do as a matter of fact seek; and the Assertorial Imperative is, 'Act to attain happiness'. But this 'end,' Kant says, is so vague that it can hardly be called an end at all. I think that Kant did tend to fall into the same error as the Hedonist and Self-realisationist falls into, in so far as he describes it as an 'end,' but he never did make the mistake of supposing that it had anything to do with the *moral* judgement. I think it quite fair to argue that what he really meant was, 'The idea of happiness is not the idea of an end at all—an objective end towards which your will is directed—but rather of a subjective unity of purpose involved in your having particular ends, and involved in your regarding particular things as good'. But even if my interpretation on this point is not accepted, the matter of vital importance is not whether Kant meant, by Happiness, an End; but rather, what significance such an 'end' could have *morally*. According to him, it had none.

And this brings us on to a subject whose importance has not been adequately recognised in ethics, and which has been treated in anything like a satisfactory manner only by Kant. In assuming, in some form or other, the Utilitarian principle (that the criterion of moral action is that it realises an end), philosophers have neglected to distinguish between the questions, "*What* is my duty?" and "*What* do I *mean* by Duty?", just as the Self-realisationist fails to distinguish between the questions, "*What* is good?" and "*What* do we *mean* by 'good'?" It may be true in fact that *what* your duty is, at any given time, can be described as 'an end which you ought to realise'; but it does not necessarily follow from this that the 'moral judgement' has anything to do with the end to be realised. For this reason, we must distinguish between the questions, "*What* is my duty?" and "*What* do I mean by Duty?". What we call the formalism of Kant is due very largely to the fact that he began with the second of

these questions ; and a great number of the current criticisms of his ethics are quite beside the point, just because they fail to see that he did start with this second question, and that he has, in essentials, given the final answer to it. If we look at these two questions, we can see that the first is about a possible action, and the second about a concept.

How we answer the second, may or may not have important consequences for Political and Moral Philosophy, but I am inclined to think that it will have. And since what is called the Problem of Obligation is usually treated as if the solution must provide an answer for both of these questions, it is most important that we should distinguish between them, and treat each one in a proper manner. It appears to me that 'what my duty is' can only be discovered by taking account of empirical facts and conditions. To discover what one's duties are, one must take account of one's "station". But what is *meant* by Duty cannot be understood in this way. It can only be discovered by undertaking a philosophical analysis of the conception.

In the next part of this paper I shall attempt an analysis of this notion, 'Duty'.

(To be continued.)

V.—DISCUSSION.

THE EUCLIDEAN THEORY OF KNOWLEDGE.

By the Euclidean theory of knowledge I mean a theory, inspired to all appearance by Euclid's *Elements*, according to which the whole structure, the word is used advisedly, of our knowledge rests on a foundation of axioms, self-evident propositions which neither require nor are capable of receiving proof.

What one would naturally expect the intuitionists to do would be to make a list of these axioms like Aristotle's list of categories. Nothing of the sort. They prefer, paradoxically enough, to prove the existence of self-evident truths by showing what the consequences of denying them would be.

The familiar argument as I find it in a writer who cannot be accused of reactionary or Scholastic leanings runs thus "Every conclusion presumes premisses. These premisses are either self-evident and need no demonstration, or can be established only if based on other propositions; and as we cannot go on in this way to infinity, every deductive science and geometry in particular must rest on a certain number of indemonstrable axioms".¹

I admit that the infinite series difficulty is a formidable one, it shadows human knowledge to the end.

I deny that the intuitionist solution is successful or that it is even on legitimate lines.

The dependent propositions which constitute a science do not form an infinite series because they do not, in so far as they constitute a science, form a series at all.

The serial form is a consequence of the incompleteness of the science. Hear Mr. Joseph ('Introduction to Logic,' pp. 237, 307, 487 and elsewhere): "If we see, for example, in proving that the angle in a semicircle is a right angle, that the proof hinges on a feature which cannot belong to the angle in any other segment, then we see that the predicate is commensurate with the subject, and then also the predicate (if I may so express myself) *sinks into* the concrete nature of the subject and becomes a necessary part of the subject concept. While a demonstration is still wanted by us to show that the angle in a semicircle is a right angle, we have no ground for supposing that it is not a property of angles in some other segments

¹ Poincaré, *Science and Hypothesis* (Eng. Tr.), p. 35: I do not aspire to criticise M. Poincaré and only make use of this quotation because as it stands it is so to my point. Nearly all logicians, e.g., Lotze, Joseph, lapse from time to time into Euclidean language.

as well : so soon as we realize that it can be the property of none other, we have incorporated the demonstration with the subject-concept (of the angle in a semi-circle), and major, minor, and middle terms have lost for us their isolation.

"Demonstration when complete and while completely realised by the mind may be said to collapse into a judgment whose terms are interfused."

The ideal knowledge then is sustained "*in a judgment whose terms are interfused.*"

The Euclidean says that our knowledge owes its certainty to its *resting on a rock foundation of self-evident first principles*. I wish to oppose the thesis that our knowledge owes its certainty to its *depending on* ideal knowledge. Our knowledge participates deficiently but really in the ideal nature of knowledge ; so far as it does this it is its own court of appeal ; and to ask what supports it is as reasonable as asking what supports space.

The strength of the Euclidean theory lies not in the specimen intuitions which its exponents produce but in the apparent impossibility of escaping the regress to infinity in any other way than by bringing the series to an end against the buffers of indemonstrable first principles.

The infinite series difficulty is a creation of the subsumptive syllogistic logic. It is this therefore which I must challenge. According to Mill's view the major premiss is a summary or shorthand note of experience up to date. As such it can have no jurisdiction whatever, as of right, over any future experience. We may have, as Hume would have said, a propensity to expect that as hitherto all men have died in the course of nature so will in due time the still living Socrates. We have no right to make any inference at all on this view. We feel an expectation ; we may, if we like, record the fact. But it is a fact about our idiosyncrasies not a fact about the course of events.

Mill's theory entirely destroys any genuine inference.

AND SO DOES THE TRADITIONAL SUBSUMPTIVE SYLLOGISM.

Mill's theory destroys inference because it denies any action of the major premiss on the new case. The traditional subsumptive syllogism destroys inference because it denies any reaction of the new case on the rule. Or to be quite accurate Mill destroys inference while the syllogistic logic merely annihilates it. What it effects bears exactly the same relation to an inference as a tautology bears to a judgment. There is no genuine judgment unless the identity of S and P, in S is P, is disguised. The judgment consists in penetrating the disguise (Meyerson, *De L'Explication dans les sciences*, page 129, Vol. I.).

Similarly there is no genuine inference unless the new case resists being brought under the rule. As a result of the struggle the rule is enriched, refined by the explicit introduction of a relevant condition, or otherwise modified. "Water boils at 212° F." I place the water under the bell glass of an air pump and find it boils

before reaching 212° F. I correct my rule. "Water boils at 212° F. under a pressure of one atmosphere." "All men are mortal," Old Bill Smith dies at three score and ten with all proper medical and clerical assistance. What has happened to my rule? Well I say without hesitation that it has received a modification and correction of the same order as the 'Water boils' rule received by the introduction of "under a pressure of one atmosphere". The rule "All men are mortal" stands to all appearance unmodified in its absoluteness. But only to all appearance. The special circumstances which accompanied the death of Smith will have shed a new light on the connexion between humanity and mortality and will therefore have transformed the rule in the direction of "All men being . . . are mortal". It is quite true that in all ordinary cases the amendment to the rule is below some threshold value and therefore is ignored. Similarly we say that a speck of dust coming near the earth's orbit is deflected towards the earth by gravity without adding that the earth coming within the speck of dust's orbit is deflected towards the speck of dust by gravity. The earth's deflection is imperceptible but a physical theory which denied it would be fatally defective. The enrichment of the major premiss may also be imperceptible but a logical theory which denies it is false. Action and reaction are equal and opposite. No effort, no inference. Our first crude and uncorrected perceptions of necessary connexions "strike us," normally, after an effort of cogitation. What happens from this point onwards is not essentially different. The change is from random guessing at the riddle of the universe, or some part of it, to guessing guided by clues. The clues cannot be quite worthless because they are objectively motivated but they may call for any amount of correction in their formulation.

Some function corresponding to any clue must however survive to the final synthesis.

This it is which entirely separates the view I am advocating from such a view as Mill's. For him, if Socrates dies, the rule "All men are mortal" which was previously a summary of N cases becomes a summary of $N + 1$ cases.

In my view, in any event, that is whether Socrates obeys the rule or defies it, the rule is (in principle) freed from irrelevances and made more nearly the statement of a pure case because the connexion between "man" and "mortality" is mediated a stage further. Whether preliminary general principles are employed or not, the formula of the process of discovery is the same: an experiment crowned by an insight.

Let us, to illustrate this, consider what the difference is between seeing or feeling something to be true, and being able to demonstrate it.

What is the difference between the Seer and the systematic philosopher?

I take up a stone in one hand and sand in the other hand; after making adjustments and moving my hands to stimulate my

muscular sense I pronounce that I *feel* the two weights to be equal. To satisfy a sceptical bystander I transfer the things to the pans of a balance and (let us suppose) *prove* that I am right because I can see that the beam is level. The sceptic denies this and I have to *prove* it by showing him that the vertical pointer is opposite 0.

In every case I have in the end to rely on a personal perception. I check the report of the muscular sense by vision and then I check vision under ordinary by vision under specially prepared conditions. The personal equation effect is progressively minimised but it is never abolished.

Consider now the case of a lonely seer who, untrammelled by logic or philosophy has long meditated on human life, and who as he will maintain *sees*, as a consequence, that it is governed by a good God. If this seer is put to prove his conviction he will have to go through a series of operations corresponding to my proving the correctness of my weight estimate. He will have to analyse his sentiment of propriety. Every successive stage of this analysis will be a proof compared with the previous unanalysed state and a feeling compared with a subsequent more exacting analysis.

There is no theoretical end to the possibility of further analysis. There are no atomic judgments such as intuitions aspire to be. But though there is no end there is a limit. This limit cannot however be exhausted in judgments. However I may multiply the sides of an inscribed polygon I cannot make its periphery coincide with the circumference of the circumscribed circle.

The very form of judgment is an inadequate vehicle of what would finally satisfy the intelligence.

This is, I hope, neither scepticism nor mysticism. Our thought is under control. It knows what it wants. Its goal is present to it in the same way as a forgotten name sometimes is: "there is a gap in consciousness and in the gap a sort of wraith of the word". The word which would solve the riddle of the universe escapes us. We are, in respect to it, like some sufferers from aphasia.

There is a story of one of these, a lady of the name of Blanche, who could not utter her own name. She conveyed it by "What you do to almonds by scalding them".

To return to the question of proof. The successive analyses mediate the connexion between premisses and conclusion. The unattainable goal is continuity so that the whole construction should become, in Bosanquet's favourite phrase "one tissue"; or in Joseph's language the whole hierarchy of analyses, together with the extremes whose connexion they mediate, would sink into each other in a totalising vision.

One word in conclusion. I do not undervalue the formal laws of thought and the governing principles which the Schoolmen so aptly named dignities, though I can by no means grant them the place apart which, for example, St. Thomas gives them.¹ There are

¹ All the usual citations are collected in Grabman's "Der Göttliche Grund Menschlicher Wahrheitserkenntnis nach Augustinus und Thomas von Aquin."

dignities in the world of thought but they are of the same stock as the common people. They have their authority not in their own right but as functions and concentrations of the whole body of knowledge, the living soul of which is its immanent ideal; itself a deficient derivative of the subsistent Word.¹

¹ The reduction to "Organised system" (Bosanquet, *Logic*, Vol. II., p. 222) is not final. System is intermediate in logical character between chaotic multiplicity and substance. The impulse to unity which carries thought to system also carries it on to substance.

This is proved convincingly by Kant in the *Critique of Pure Reason* in the section headed 'The transcendental ideal'.

GERALD CATOR.

VI.—CRITICAL NOTICES.

The Abilities of Man : Their Nature and Measurement. By C. SPEARMAN. London : Macmillan & Co., 1927. Pp. viii + 415 + xxxiii. 10s.

WHETHER we agree or not with Prof. Spearman in his ultimate conclusions, there cannot be two opinions regarding the great importance of this work. It is really a sequel to his *Nature of Intelligence and Principles of Cognition*, which was published in 1923. A third volume is promised to complete the series, in which "a critical review of the chief general psychologies prevalent at the present day" will be attempted. As far as the constructive work is concerned, however, the edifice appears to be complete with this second volume, and we may therefore fairly judge of the success or otherwise of the author's plan and building without waiting for the third volume. The plan is no less than to lay the foundations of a psychology based on experiment, and on laws and principles deducible from experiment by rigorous mathematical methods. The laws were really formulated, as the three *noegenetic* principles, in the preceding volume. The present volume is concerned mainly with the examination of the ultimate conclusions concerning the nature of what we call "intelligence" to which we are led by the results of experimental work in the field of mental testing.

The task of summarising Prof. Spearman's argument is by no means an easy one, unless it is performed in too general a way to be very helpful. The volume is divided into two parts, of which the first is taken up with a discussion of the rival doctrines concerning the nature of "intelligence," and ends with the statement of the author's own theory, and the second with a consideration of the fundamental facts of human ability, as disclosed by the various kinds of mental tests, upon which that theory professes to be based.

The doctrines criticised in the first part are designated "monarchic," "oligarchic"—in two forms, the doctrine of formal faculties and the doctrine of types—and "anarchic". The "monarchic" doctrine is the dominant popular view that "intelligence" is a single ruling power. It was from this point of view that intelligence tests were first devised and used. But doubts very soon arose as to the meaning of the term "intelligence," and at the present time there is a perfect chaos of differing views, the most contradictory interpretations of the word being current among psychologists, as

witness a symposium recently held in America. Every attempt at definition seems to lead to confusion worse confounded. Hence, the author contends, "if the great edifice of mental testing with all its fair promise is not to collapse like a house of cards" some doctrinal support other than this "monarchic" doctrine must be found. As a consequence of this line of thought two "oligarchic" doctrines have at different times found favour, the doctrine of "faculties" like judgment, memory, invention, attention, and the like, and the doctrine of "types" like subjective and objective, introverted and extraverted. For the first of these, which asserts functional unity in the case of various "faculties" like attention, memory, imagination, there is no evidence whatever in the results obtained by experiment. The same is true of the second. Faced with this situation many psychologists, of whom Thorndike is perhaps the most prominent example, have maintained that "the mind is a host of particularised and independent faculties"—that is the "anarchic" doctrine. But again the fact that mental tests almost always show high intercorrelations with one another negates this doctrine. On the other hand those engaged in actual testing have tended practically to abandon any attempt at rational justification of their procedure, beyond claiming that, by pooling a number of tests of varying character, they were measuring the "general level" or "average" of intelligence, and that this method can be shown to justify itself in practice. Such theory as there is here is merely a rationalisation after the event. In actual fact the procedure has no theoretical basis at all.

This leads Prof. Spearman (in Chapter VI.) to the formulation of the theory, which in one form or another has been identified with his name for more than two decades—the theory of the two factors, which he here calls the "eclectic" doctrine. This doctrine was formulated as early as 1904 in the statement "all branches of intellectual activity have in common one fundamental function (or group of functions), whereas the remaining or specific elements seem in every case to be wholly different from that in all the others". That is to say, the results obtained by testing by means of mental tests any mental function show that it depends upon a general factor g and a factor s which is specific to that function.

It must be noted that Prof. Spearman does not identify his general factor g with "general intelligence" in the popular sense. It is only one factor present in every operation involving intelligence. So far from identifying it with "intelligence" he devotes the remaining chapters of the first part to the development of his thesis that the general factor g is to be identified with, or is a measure of, "mental energy". In Chapter VII. he sets aside in turn the view that g can be identified with "intelligence," that it can be identified with "attention," and the contention that the mathematical relation upon which his argument is based can be explained by pure chance. Chapter VIII. discusses the phenomena, which the author groups under the head of "universal mental

competition," of which more presently. Chapter IX. presents historically and critically the hypothesis of "mental energy".

The second part of the book, as we have said, is devoted to the consideration of the fundamental facts upon which the author's theories are based. He claims that the results of mental testing, when carefully scrutinised and subjected to mathematical analysis, show in the most striking and unmistakable way that any mental function tested involves a factor g , which is common to all mental functions, and a factor s , which is specific to that particular function. The main point of the mathematical analysis is the application of the criterion of "tetrad differences". The argument is that, provided the mental performances tested show no 'overlap,' if the median of the tetrad differences is equal to the probable error of sampling, or, more accurately, if the observed frequency distribution of tetrad differences corresponds to the calculated frequency distribution of sampling errors, then the two-factor theory is valid. The mathematical proof is given in an appendix.

In Chapter XI. the universality of g , as far as cognitive processes are in question, is discussed. The whole range of mental tests is considered, and the author arrives at the conclusion that the factor g is involved in all, and that it measures what the usual tests of intelligence are trying to measure. It ought to be added, that, while the discussion professes to follow the lines of the three *noegenetic* laws—the "apprehension of experience," the "eduction of relations," and the "eduction of correlates"—these laws are sometimes applied in a highly artificial and forced manner, and the author can find no mental test which measures the ability represented by the first law. We shall return to this point later. Chapter XII. considers the "amount of g in different kinds of eduction". The chapter is a very interesting one, both from a theoretical and from a practical point of view. Towards the end the author finds in the results which he has been discussing evidence in favour of his view that g measures "mental energy," but it is very doubtful whether many psychologists would admit that these deductions from the facts are valid. In any case the facts themselves appear to us more interesting than the deductions.

The problem that the author sets himself is to determine in what degree the various abilities tested by mental tests involve the general factor g , as shown by the correlation with g of the various results obtained. Comparing first tests involving different kinds of relation, he finds on a first inspection that the highest correlations are shown on the one hand by a test involving 'mixed' relations (94), and on the other hand by a reasoning test employed by Webb (94). He contends, however, that the various results cannot be accepted at their face value, and concludes (1) that g enters about equally into mental processes involving relations of any kind, and (2) that of the tests of this type employed by different investigators we can quite definitely characterise some as good and others as bad. These conclusions lead him to consider influences of an "extrinsic"

character which may affect correlation, and he finds that such influences amply explain the differences in the degree of correlation obtained with different kinds of relation. Then we come to the most important section of the chapter. Having failed, as he says, "to discover that the saturation of g is markedly affected by any differences in the fields of cognition," he raises the question whether it is affected "by the manner in which any such field may be developed". With this in view, the contention that intelligence is essentially characterised by power of abstraction is examined. If this is the case the best tests of intelligence will be so-called 'abstract' or verbal tests, rather than 'perceptual' or concrete tests, the latter being mainly of the type usually designated "performance tests". The author first considers results obtained by Stockton (*Psychological Monographs*, No. 127) and by Herring (*Journal of Educational Psychology*, 1921). Herring concludes from his results that "the leading part in intelligence is played by the ability to handle abstract ideas, and above all symbols". This is, of course, a conclusion to which many workers with mental tests have come. It is also the conclusion which we should expect *a priori*, but that is a different thing from being able to adduce experimental evidence. Prof. Spearman challenges the evidence which Stockton adduces on the ground that the tests employed by him were not fairly matched. In an investigation carried out by Davey, the results of which were published in the *British Journal of Psychology*, where an attempt was made to match the tests belonging to the categories of verbal and abstract on the one hand, and pictorial and concrete on the other hand, the advantage alleged to belong to the abstract type of test did not appear. The final conclusion is that "the prevalent theories as to the part which abstraction and language play in ability and in mental testing have at least some need of revision". This is a very important conclusion, as is the further finding that "cognitive growth consists in a progressive clarification". As the result of a cognate enquiry into the variation of the value of a test with its degree of difficulty, the author comes to the conclusion that the best tests are those of a medium degree of difficulty.

From the point of view of the author's main thesis the remaining chapters are of secondary importance. They are devoted to the consideration of "special" (s) and "group" factors. He finds no clear evidence of the existence of "group" factors in "faculties" such as sensory and motor ability, abstraction and language, memory and imagination. There is no general "speed" factor nor "clearness" factor independent of g . There appears, however, to be a "group" factor involved in that aspect of memory which we call "perseveration". It is suggested that this is but another aspect—the aspect which may be called "inertia"—of that mental energy, the quantity of which is measured by g . Probably another functional unity exists, corresponding to oscillations in mental activity. And still further factors, called by Garnett c and w respectively, must probably be recognised. The last is a conative factor.

We would fain write with nothing but appreciation of what is indeed a notable and valuable book, but there are some points which simply cannot be passed over. The author begins by stating that he is concerned primarily with problems of cognition. He does not deny that there are other aspects of the mental life—conation and affection to wit—but he claims that the cognitive aspect may be justifiably treated by itself. So far so good. In treating cognition by itself, however, we must be careful to make no assumptions with respect to its relation to the other aspects, which we are not under the necessity of making. And if we make such assumptions it is surely incumbent upon us to justify them. Now, on the very first page of the first chapter, Prof. Spearman assumes that cognitive processes excite in the individual "appetites, aversions, impulses, decisions, voluntary actions, pleasure, sorrow, and so forth". There is certainly a very fundamental assumption here, and to protest against it is not to abandon the field of psychology for that of metaphysics, as the author suggests. Why, in the last paragraph of the same first chapter he himself makes the statement that "a person's cognitive ability" (whatever that may mean) "may be regarded as an instrument or *organ* at the disposal of *any* of his conative activities". There is here another assumption, and it seems scarcely consistent with the first.

This is not all. In Chapter VIII. on "Universal Mental Competition," which is one of the key chapters of the book, the author's object is to indicate the phenomena which have led and inspired him to regard *g* as measuring an individual's "mental energy". "Universal competition," indeed, he calls "the leading quantitative law of the mind". Surely here then, if anywhere, the reader may rightly demand the utmost carefulness and precision of statement, judiciousness of criticism, scrupulous abstention from all exaggeration, and rigorous logic. What do we find? First of all he cites the phenomena usually described under the head of 'span of apprehension' in psychological text-books, then some of the phenomena which one would naturally take as illustrating the 'unity of attention,' then emotional dissociation phenomena of various types. In fact he cites phenomena of at least three different orders, and some of them—possibly all of them—cannot for a moment be considered as belonging rightly to the cognitive aspect of mind at all. Following this we come upon the extraordinary statement that these phenomena have been entirely neglected by the majority of psychologists—a kind of statement, by the way, of which Prof. Spearman is inordinately fond—which is contradicted by the whole of the rest of the chapter, since that is devoted to a criticism of the various theories that have been put forward by psychologists to account for the very phenomena in question. Stout's definition of 'attention' is dismissed summarily as "mere verbiage". The doctrine of the 'unity of consciousness,' "despite all its illustrious sponsors," is rejected on the ground that, if it prevents a person from perceiving a dozen objects at the same time, it ought also to

prevent perception of six, or even of two. This is the merest trifling. Again he asks why the same rivalry of functions is not shown in bodily processes like circulation, secretion, digestion, and the like. Nothing can be more certain than that analogous phenomena *are* shown, *mutatis mutandis*, in the case of such processes. But whatever our opinion of the argument of the chapter as a whole may be, it is at least certain that the author is no longer confining his discussion to the cognitive aspect of mind. This fact is further emphasised in Chapter IX., the central chapter in which the "Hypothesis of Mental Energy" is discussed. The "law of universal competition" now becomes the "law of constant output," without the citing of any evidence, as far as we can see, beyond the bare assertion. This "law of constant output" in turn covers every aspect of the mental life.

This criticism requires to be pressed home, because it is a very important one, affecting our whole attitude, not only to the present work, but also to the previous work on *The Nature of Intelligence and the Principles of Cognition*. Professing, as in the present case, to deal only with the cognitive aspect of mind, that work suggests throughout that cognition is mental life—intelligence *par excellence*. Hence, however valuable the results reached may be—and they are beyond question very valuable—the impression of the whole is that a very distorted presentation of the mental life has been placed before us. There is the same impatient dismissal of views which do not seem in harmony with those of the author. Thus in Chapter IV. of the *Principles of Intelligence* we find a paragraph headed "Pseudo-processes," which contains the curt dismissal, without the adducing of any adequate grounds, of the highly respectable view that intelligent process is always analytico-synthetic in its movement. Why that view can be shown to cover and illuminate Prof. Spearman's own!

A great part of the difficulty seems to arise from the fact that Prof. Spearman has taken as his first principle of cognition a principle which is far wider, and would appear to cover the whole mental life in all its conscious aspects. This first principle is that "any lived experience tends to evoke immediately a knowing of its characters and experience". In a paper read before the Aristotelian Society two years ago the present writer claimed that the best description of consciousness as a character of mental process was as "an inside view of the event". This view has since been adopted by Head in his important work on "Aphasia". If we add to this the character, which for want of a better term may be designated 'insight,' we appear to have in these two the fundamental characters of 'mind,' using that word as a comprehensive term to cover the processes we regard as constituting the mental life. Of these characters it is clear that it is the second, if any, and not the first, that may be spoken of as a principle of cognition. The first, as we have said, covers all the aspects of the conscious life.

There is a second important point. *A priori* one might have expected g to be a function of 'insight'. To find it identified with 'energy' comes with something of a shock. 'Energy of cognition' is a phrase to which it is very difficult to attach any meaning, if it does not mean simply 'clearness'. 'Energy of conation' we might understand, but then that is found to depend on another factor w which is specifically distinguished from g . The possibility of g being of the nature of 'insight' does indeed present itself to Prof. Spearman, but he sets it aside. In Chapter XI. he asks the question: Does this result admit of reduction to the simple formula that g measures the power to grasp relations? He replies in the negative, but, it seems to us, on the most flimsy grounds. Such a formula, he says, would suggest only the educing of relations, and leave out of account the educing correlates. In the name of common sense why? It would, in the second place, overlook the possibility that g enters also into the power indicated by the first noegenetic law. This bare possibility is so purely hypothetical that, as we have seen, he can find no experimental evidence whatever even to consider in the previous chapter, when he is discussing the noegenetic laws. In any case the first noegenetic law is in no sense a law exclusively of cognition. In the third place, it would imply that g constitutes the whole of any such power, whereas the evidence indicates that g is never more than a factor in it. This is the strangest reason of all. It does not appear to have any force whatever in the present connexion.

Finally the claims of the author appear to us somewhat extravagant. At an early period in his investigations he denied that g could be identified with power of attention, as was being asserted by several investigators. At that time, however, he was content to regard it as "a plastic function of the nervous system," and there was no suggestion that it involved a threat to orthodox psychology. It has now become "mental energy," and there is a suggestion that the greater part of psychology will have to be written over again. The grounds for such conclusions appear entirely inadequate. It should not be forgotten that the mathematical deductions have themselves been challenged. Even were these accepted as valid to the full extent claimed by Prof. Spearman, the identification of g with "mental energy" would still be going a long way beyond the evidence, and the meaning to be attached to "mental energy" would remain as obscure as ever.

JAMES DREVER.

The Nature of Existence. Vol. II. By JOHN MCTAGGART ELLIS MCTAGGART. Edited by C. D. BROAD. Cambridge: At the University Press, 1927. Pp. xlvii, 480. 30s.

It was the late Dr. McTaggart's custom to make five complete drafts of any book he published, and at the time of his death he

had completed about half of the third draft of this second volume, the remainder being printed from the second draft. In the ordinary sense, however, nothing that is here published is left fragmentary or incomplete, and the book in every page has the finished and amazingly limpid quality of all its author's writings. As Dr. Broad says, "It seems unlikely that McTaggart would have made any very substantial modifications, if he had lived".

This is not to say that the editor's task was easy. In order to make this volume uniform with its predecessor, Dr. Broad had to supply cross-references, to construct an index of fundamental terms, and to compile an analytical table of contents. The last of these occupies some forty pages of small print and it could not well have been shorter. Of it also we may say that it seems unlikely that the author would have wished to alter his editor's work in any appreciable way.

Although the first volume accepted two pieces of empirical information, *viz.*, that something exists and that what exists is differentiated, its argument was in essence non-empirical and rigidly demonstrative. The second volume, on the contrary is, in one sense, frankly empirical since it undertakes a survey of what appear to be the empirical facts of existence, with a view to discovering which of them, if any, tally with the general characteristics of all authentic existence as already determined in the first volume, and the respects in which modification is necessary in the case of those that do not tally. The general principle is that every appearance must be presumed to be as it shows itself unless the contrary can be proved. This principle is rigidly maintained, but the *prima facie* look of so many apparent facts fails to conform with the metaphysical requirements already demonstrated that the result, superficially at least, is not very empirical. It is also, admittedly, not demonstrated to the hilt. The argument is, in effect, that spirits and their parts are the only things in the apparent universe that can conceivably fulfil the metaphysical requirements of authentic existence; and then, in the main, *de non apparentibus et de non existentibus eadem est ratio*. On these principles the doctrine of spiritual pluralism attains a high degree of probability.

The critical survey begins with a proof of the unreality of time, and this repudiation of what is temporal dominates the entire subsequent discussion. The gist of the argument (which was set forth twenty years ago in an article in this journal) may be stated, I hope not inadequately, as follows:—

(a) Positions in time appear *prima facie* in two orders, *viz.*, as past-present-and-future (here called the A series) and as earlier-and-later (here called the B series); (b) Time implies change; (c) The positions in the B series do not change in any way but are permanent and unalterable (even the *moments* in this series do not cease or begin to be); (d) The characteristics of an event cannot change (*e.g.*, the characteristics of Queen Anne's death); (e) The characteristics of substances as described in the B series do not

change (for although, *e.g.*, a poker may be hot at 10 a.m. when it is in the fire and cold at 11 a.m. after it has been taken out of the fire, all these facts are eternal constituents of the poker's history); (f) If there were genuine change, this could occur only in the A series (for, *e.g.*, what we call future does appear to cease to be future, becoming present and "afterwards" past; but only the A series has, in strictness, this property); nevertheless (g) the A series implies a contradiction (for anything in it, apart from its beginning or end, if it has a beginning or end, possesses the incompatible determinations of past present and future); (h) the apparent temporality of the B series is derived from this inconsistency in the A series and is consequently illusory.

It follows that there is no point in attempting to avoid the contradiction contained in (g) by saying that the same event at *different times* has the incompatible determinations of past present and future since the "different times" (in the B series) have the equivocal ancestry whose pretensions are demolished in (h).

This argument seems to me invalid. If moments, as we commonly suppose, really are passing and changing entities there is surely no inconsistency in maintaining that their *order* is unchanging; for the order of change, like the concept of change, need not itself change. Alternatively we may say that *if* time implies change, and *if* the B series is unalterable, then the B series cannot possibly be temporal; and Dr. McTaggart, I think, has no right to say that it *appears* so, for it does *not* appear to be alterable as regards the *positions* of earlier and later. In short this alleged proof appears to me to be only an initial repudiation of change (as definitely self-contradictory) together with the explanation that past-present-and-future is the ultimate stronghold of apparent change. The conclusion, of course, is that the unchanging order of earlier-and-later must be reinterpreted in such a way as to purge it of any lingering suspicion of genuine change. The reality of the B series is the C series; and this will occupy us anon.

The rejection of time's reality is not in itself, of course, a necessary premiss for all types of idealism, since spirits appear to be temporal just as clearly as matter or *sensa*. On the other hand, the rejection of matter and of *sensa* (if the latter, as Dr. McTaggart thinks vastly probable, are not spiritual perceptions but, the objects or percepta of such perceptions) seems essential to every idealism. This rejection is accomplished in two chapters. The first, which is rather long, defines matter as that which possesses the "primary" qualities (according to the usual list) and argues that any such supposed substance cannot, as the substances in absolute reality must, "be divided into parts of parts to infinity by determining correspondence" (*see* vol. i) either with regard to the "strictly spatial" properties of size, shape and position or with regard to the "non-spatial" properties of colour, hardness, etc., This discomfiture of matter, it is further contended, need not perturb anyone, since matter (logically though not psychologically)

is but an inference from *sensa*, and pretty generally regarded as a shaky inference. *Sensa*, on the other hand, are inexpugnably apparent in ordinary experience, but the author maintains, rather briefly, that the qualities of *sensa* are also incapable of yielding the determining correspondence that is needed. These qualities are either indivisible or not divisible to the extent or in the way required. He argues, therefore, that "when we appear to perceive a *sensum* we do really perceive something but that we misperceive it".

Apparent existence, of course, is either apparent matter, or apparent *sensa*, or apparent spirits and their apparent parts. The former pair being rejected, we must enquire into the latter pair. The author's conclusion is that spirits and their parts *may* exist when interpreted in a certain way. But first he has to explain their nature.

Accordingly we are informed (a) that each of us does perceive his own self or spirit by direct inspection, and that no one, unless he does so, has any reason to make any assertion about himself, (b) that it is highly probable that, in the language of time, the ego that Jones calls "his" when he remembers an event in "his" history twenty years back, is one and the same ego, (c) that we are sometimes self-conscious and sometimes not, (d) that any experience must be part of some self, and (e) that no experience can be part of more than one self.

Of these arguments the last two are said to depend upon an "ultimate synthetic proposition" and so are beyond argument though not beyond elucidation; (c) seems to me correct, although I doubt its consistency with what the author later says in §804; (b) however, in view of what Locke, *e.g.*, or Kant or Bradley have contended, seems to deserve much fuller discussion than it here receives. When the ego is distinguished from its acts, I do not see what right we have to say that the same ego *must* endure even throughout the same specious present. For the specious present is what is present to one *act*, and this single act might be supported by half a dozen egos. Ignoring this, however, I shall say something of (a).

Everything, we are told, is known either by acquaintance or by description. This view, admittedly, might be challenged, but let us accept it "without prejudice". It follows that, if X's ego is not known to X by description, it must either be known to him by acquaintance or not at all.

X's ego is different from all other egos. Hence, if X knows it by description, he must be capable of acquiring an exclusive description of it. Suppose, then, that X knows some fact, say *f*. Such an *f* need not be exclusive, but according to our author, X, in terms of the hypothesis, would also be able to say "I know *this* acquaintance with *f*". "*This* acquaintance with *f*" is exclusive, but Dr. McTaggart wants to know how there can be any certainty that the ego which makes this judgment is the ego which has "*this*

acquaintance with *f*". The assumption that any given ego can be aware *only* of its own cogitations may be mistaken, and although only a given ego can have "its" perceptions, where is the certainty that the ego which has "*this* awareness of *f*" is the ego which makes the judgment? X, then, cannot know himself by exclusive description. He does know himself; and consequently he must know himself by direct acquaintance.

There seems, however, to be a lacuna in this argument, for how, on the theory, does X know for certain that "*this* awareness of *f*" is a part of himself? Dr. McTaggart's arguments about "parts" do not seem at all clear. "Parts" seem sometimes to be phases and sometimes elements (if not sometimes even properties). If Dr. McTaggart had maintained that whenever anyone says "I perceive so and so," the "I" permeates this awareness and visibly declares its ownership of it in every instance, his conclusion, I suppose, would have been indisputable. One gathers, however, that he asserted nothing of the kind for he constantly speaks of perceptions perceiving their percepta, and in that case it does seem possible that what we call our ego might be only a unity of these and similar "parts".

When Dr. McTaggart does come to deal with this alternative theory, he treats it, I consider, very inadequately. The classical statement of it, he says, is Hume's theory of the bundle. So he trounces Hume and enumerates various relations which would not make the alleged bundle even plausibly a personal self. He might, however, have considered various possible uniting relations which are at least not obviously inept, *e.g.*, that no conclusion could be inferred unless the knower of the conclusion were also the knower of the premises, or that there must be what we call "unity in the same person" between a state of disappointment and a state of previous expectation. Again, it might be argued against him that bundles occur only when things that are "loose and separate" are bundled together, so that, if awarenesses and the like are really "loose and separate," no ego could unite them convincingly, whereas, if they are not "loose and separate," even classical remarks about bundles cannot settle the question.

On page 87 we are told that "the spiritual realities which *prima facie* occur within selves may be classed as perceptions, awarenesses of characteristics, judgments, assumptions, imagings, volitions and emotions" and the author comes to the startling conclusion that perceptions alone are capable of fulfilling the requirements of determining correspondence, although volitions and emotions, being "founded" on perceptions, may (in certain senses) exist in absolute reality. This paves the way for the establishment of idealism "in that sense in which Leibniz, Berkeley and Hegel were idealists". It is highly probable, we learn, that the universe consists of selves and of their parts. The selves are primary parts, their parts are secondary parts, of absolute reality. Each self perceives other selves and their parts, as well as itself and its parts;

and no self perceives anything else, or has any cogitation except perception. Such perceptions are capable of being infinitely divided, although empirically they do not seem so divided. The meaning of this doctrine together with its strangeness to and its congruence with ordinary human experience are explained pretty fully in chapters xxxix and xlii.

The rest of this Book is chiefly concerned with the analysis of volition and of emotion, although there is a chapter which attempts to prove the impossibility of a creative God on any theory, together with the futility of a controlling one even on a temporal theory, and appends certain considerations concerning immortality. With regard to volition, it is contended that volition and desire have the same meaning, that desire is simple, ultimate and indefinable, and yet that it is "founded" on cogitation in such wise that desires are an additional quality of certain cogitations. In further discussion it is maintained roundly that good and bad are objective in the same sense as mathematical relations, that there is no common property in things desired other than the property of being desired, and that desire need not be for change but that the quality of desire (as it is seen in absolute reality) is fundamentally the quality of acquiescence. It is evident, therefore, that this author does not believe that time is of the essence of these experiences, or that there is any inaccuracy in using the terms "volition" or "desire" where all is finding and nothing seeking.

The chapter on emotion is probably of greater intrinsic interest than any other in the volume, because it contains an abstract, dry, yet extraordinarily beautiful and moving analysis of the emotion of love, which here, as in the author's *Hegelian Cosmology* is maintained to be, so to say, the main occupation of the selves in absolute reality.

Love in its proper sense (we are told) is passionate liking (not mere liking as Hume and Spinoza said) and is strictly towards persons only, not towards their qualities, or towards groups of them, or towards abstractions. This, of course, is partly a question of definition, but the distinction between love and either benevolence or sympathy (in the sense of fellow feeling) is not a dictionary affair. Dr. McTaggart does not exactly say as Hume did (*Treatise*, Oxford edn., p. 368) that "if nature had so pleased, love might have had the same effect as hatred, and hatred as love. I see no contradiction in supposing a desire of producing misery annexed to love and of happiness to hatred." What he does say is that in actual experience a lover, because of his love, may sometimes try to hurt his beloved, and does not always rejoice in the loved one's joy or good fortune. That sense of union which is love must therefore be distinguished from benevolence or sympathy. *Amor* is *amor unionis* or, rather, the latter phrase is a pleonasm. Love is authentic and justifies itself completely whether its cause be great or trivial. Unlike all other emotions it should not be condemned at all even if it cannot point to any admirable quality in its object;

and it persists (and ought to persist) even when the loved one, having captured our love, eventually is seen to be worthless (as a father may love, and should continue to love, his renegade son).

The position is summed up thus on page 164. "Every person who perceives himself directly must also perceive directly at least one other person. Now love induces in the lover an emotion towards himself which we may call self-reverence. Since I love I have value—supreme value, since I am possessing the highest good. And since I have value I shall regard myself with reverence." I do not know that comment is desirable. It seems to me that too much stress is laid upon the circumstance that perception and love both imply union. The union implied in perception need not entail love (as the author admits when he states that we do not love ourselves or our parts although we perceive these) and I do not see that we must love others if we perceive them. Union, again, is reciprocal, and love need not be. But, as I say, I prefer not to argue.

The next Book deals with error. Error, it is contended, is not *merely* an appearance. It cannot be eliminated from authentic reality. For any "explanation" of an error of some given kind implies the reality of *some* other error. On the other hand, no error need exist in any other fashion than within the deluded subject.

The only *invincible* error in our perceptions is the illusion of time, and if perceptions (with or without emotional qualities) are the only genuine parts of selves, it is held that we may conclude with high confidence that there is a single cause of error closely connected with the illusion of time. The argument of the Book is directed towards the establishment of this hypothesis.

The perceptions in the determining correspondence system give no place for error, but it is possible that these, in any particular self, may be divided in some dimension other than the two dimensions of the determining correspondence system, and that what we call time is the appearance of this fresh dimension. Such a hypothesis, it is claimed, satisfies the eleven very stringent conditions which any theory of error must comply with (these are enumerated, a twelfth condition being added later) and it is unlikely that any other hypothesis would do so.

In effect, we now return to the C series, hoping to find in it the key to error and also to the appearance of the B series. At one end, any C series is bounded by (although it does not include) nonentity. At the other end, it is bounded by (and does include) complete and correct perception. Between these extremes lies a stretch of misperceptions, each precisely what it is and therefore different from all the others: but all including something of the final stage. Instead of Leibniz's degrees of confusion, the members of any C series are differentiated by *amount* of perception. "Nothing more must be perceived but everything must be perceived more" (p. 245). Although we have no proper analogy for the meaning of this "inclusion" in ordinary experience we can understand it well

enough if we suppose with Dr. Ward that there is the same *totum objectivum* for all the misperceptions in any C series and that this is more and more perceived (not necessarily more clearly or more accurately) as the stages approximate to completeness. (Since the increments in amount of perception are not themselves stages in the series, just as increments of pleasure are not states of pleasure, we must append a D series to the C series in order to express our results.)

Accepting the C series, we are justified in regarding the B series as a *phenomenon bene fundatum*. There is no term in the B series which does not have a place in the C series; and, again, the order and direction of B and C series correspond quite precisely (though we have yet to settle in *which* direction). To be sure, these arguments directly concern the B series in *each particular self*, but the author also argues that the stages in each self *correspond*, and that corresponding stages in different C series are "as really simultaneous" as, say, the taste and smell of an orange appear to be. Since Dr. McTaggart believes in pre-existence and immortality for all the selves throughout what is called time, he is very ready to accept this conclusion, but I cannot think that the arguments he adduces in its favour are at all strong. So far as I can see, his contentions would force us to assume not only that the distance from nothingness to the complete amount of perception is the same for each self (and they do not all have the same complete perceptions) but also that there is the same finite number of equal increments in each C series. This, as Mr. Churchill would say, is a lot.

In the remainder of the Book the author discusses the error implied in the belief in matter and in *sensa* together with the errors demanded by his theory, *viz.* that judgments, assumptions and the like, are supposed not to be, although they must be, perceptions. Here I shall offer a few desultory comments.

Dr. McTaggart is greatly concerned at having to controvert the view of many of his friends that misperception is nonsense because perception is infallible. He comforts himself by reflecting that all that the most extreme advocate of infallibility could legitimately maintain is that "this that I perceive is as I perceive it while I now perceive it"; that what I perceive is always a specious present or stretch of duration which is therefore not contemporaneous, as a whole, with my "now"; and that this limitation of the self-evident correctness of perceptions is really a qualification of their correctness. I do not think that this argument is properly stated, since the "now" of my perception endures as well as the "now" of my perceptum, but the argument, I think, presents a real difficulty to those who believe that perception is infallible.

Regarding *sensa*, the author holds that apparent *sensa* are really selves appearing as *sensa*. He also holds that the very idea of a self being "of a green colour or approximately circular" is a downright absurdity. If so, it may perhaps be thought that there is an equal absurdity in holding that a self could ever appear in this absurd garb.

Regarding judgments, it is not disputed that certain judgments are self-evidently true, even when what is called the "judgment" is really a misperception. The judgment in this case is held to be the correct part of a whole which is not all correct. Such a whole is more than a judgment, and is therefore malobserved when it is described as only a judgment.

I doubt whether the author is quite consistent in what he says here about emotion. One of his main arguments is that a state of hatred, *e.g.*, may very well be part of a state which in its completeness has the quality of love. For the parts of a whole may very well have qualities different from, and even antithetic to, those of the whole. Plainly, this argument depends only on the fragmentariness of the misperceptions and not at all upon the time-illusion in them; and consequently hatred, jealousy and some other such qualities may *really* qualify these real stages in the C series. Thus they *may* exist in absolute reality although Dr. McTaggart elsewhere maintains that they cannot. (It is true, no doubt, that they could not exist in the determining correspondence series.)

The last Book deals with "practical consequences"—or (should we say?) with consequences that appear to be practical. Its theme is meliorism and optimism in the light of the results obtained.

First, it is shown that the "sense" from earlier to later is more fundamental in the (apparent) B series, than the "sense" from later to earlier. The reason is that changes appear to take this direction, and in practice the circumstance is important since anticipation affects a man's present state far more than memory does. (Since fatalists of the Oriental cast, or persons whose point of view is summed up in the phrase represented by Odtæa, do not admit this greater importance, it might be objected that it is the belief in the alterability of the future that imparts this difference in importance.)

Next, it is maintained that for three reasons (which are very carefully argued) the fundamental "sense" of the C series is the "sense" from nonentity to completeness. Consequently, in order to avoid a gratuitous assumption of error, we must conclude that earlier-to-later in the B series corresponds with this direction in the C series and not with its converse.

Sub specie temporis, any perception is a perception of what is present. The final stage in the C series, however, will not perceive itself as present, since it will be rid of the illusion of time. Nevertheless, presentness is the least inadequate metaphor for expressing the way in which the final term contemplates itself. At our stage of misperception, however, we must always regard the final stage as future; and therefore many Christians (although without knowing why) have spoken more truly than many philosophers. Again, although all the members of a C series are eternal, the final stage is the only one that will appear to be endless to the other stages.

Thus immortality, in the ordinary sense, is a *phenomenon bene fundatum*; for we ourselves, *sub specie temporis*, must appear to

have an endless future. It is as true to say that I shall exist for ever as that I had my breakfast this morning, and since pre-existence is said to be demonstrated along with immortality, it is also, of course, as true to say that I have existed from the beginning of time as to say that I shall exist for ever. The proof here is given in § 615. (As I have already argued, it seems to me that the appearance of beginnings which are contemporaneous with one another and with time need not result from the mere fact that all C series proceed from nothingness to completeness, and I should even doubt whether the author has really solid ground for denying that selves might begin at the stage at which they appear to begin, *i.e.*, that each self begins with its first apparent perception.)

Since he defends this pre-existence, however, Dr. McTaggart very properly asserts the likelihood of many births and deaths in the existence of each self, and correctly maintains that the absence of any memory of former lives would not be a fatal objection to his theory. Without memory, a formed character or a ripe affection may well outlast a death; and, since the final stage of any C series includes all the prefinal stages, we shall all remember everything in our "former lives" when that which is perfect has come. Again, although without knowing it, we are likely to meet our friends many times in our recurring lives, since we know in any case that they belong to our determining group. (This argument would also apply to those whom we take to be our enemies.)

These questions having been answered, Dr. McTaggart proceeds (a) to analyse good and evil, and (b) to consider generally the proportion of good to evil in the universe.

Concerning (a) several questions of great interest are discussed. Among these I select a few.

(1) It is maintained, not only that good is indefinable (*i.e.* unanalysable) but that evil is so too. The alternative is to believe in a single relation of better-and-worse; and the alternative is declared to be inadequate because we *may* justify statements like "X is so bad that it ought not to exist"; and could not do so if "bad" meant only "less good" or "worse than the average".

(2) It is argued that value and existence are not connected analytically or by any general synthetic connexion; and that there is no intermediary which makes them mutually inferable. It is also stated, however (as an ultimate synthetic proposition), that only the spiritual has value (in a sense so stringent that not even the qualities of spirits have value directly). Spirits, however, and their parts, are substances; and substances are existent *ex vi terminorum*. Consequently there would appear to be *some* connexion.

(3) It is contended that while there may be value *in* (the members of) a group, there cannot be values *of* any group. This "seems clear" and is illustrated by the disvalue "drunkenness" which applies only to people and not to a town. Certainly in four out of the six possible goods which the author enumerates, the point

really does seem clear, for knowledge, virtue, certain emotions and pleasure *are* personal properties. It is not clear, however, regarding Dr. McTaggart's fifth good, which is "fulness of life," and would even be controverted by his sixth good, which is "harmony" (for harmony obviously holds of groups). But Dr. McTaggart takes this sixth good to be spurious.

(4) It is denied that there can be a maximum good on the ground that either pleasure or knowledge permits, in principle, of indefinite increase, and that if *any* good thing is without a maximum, good itself cannot have a maximum. I doubt, however, whether Dr. McTaggart is justified in expressing this result by saying (as he does) that there cannot be a *complete* good. When Descartes wrote to the Princess Elisabeth on these matters, he bade her remark that small pitchers may be filled to their full capacity as well as great ones; and this seems to me a justifiable way of approaching the problems of beatitude and of the *summum bonum*.

(5) There is a good deal of argument on the question whether value is only of selves, or only of their parts, or of both; and no final conclusion is come to. Hence some may suspect that the practical consequences of the discussion concerning our direct acquaintance with the ego are not very considerable.

And now for the problems of meliorism and of optimism.

Admitting the possibility of exceptions in the case of virtue and of sympathetic pain, the author contends that all goods will be unmixed (though not maxima) in the final stages of any C series, and will be vastly more extensive than any good we find in our present experience. Hatred will be done away, and love be undis-mayed. Now love is the greatest good; so much the greatest, indeed, that a certain amount of it is always better than any quantity of other goods, however much there may be of these.

(In the course of this argument it is demonstrated that virtue cannot be the only good, and the author's various references to this demonstration seem to suggest that he regarded the demonstration itself as general, not simply as a consequence of his system. If so, there is a mistake, I think. The argument is that virtue is acquiescence in the good and consequently that (apart from the possibility of mistaken beliefs) there must *be* a good, other than acquiescence, to acquiesce in. Obviously the nerve of this argument is that mere acquiescence cannot be wholly self-supporting. If virtue, however, were defined, not as acquiescence, but, say, as freedom or rationality in some special sense, there would be no contradiction in maintaining that free or rational action was the only good. Indeed, even if virtue were defined as the pursuit of an end there would be no contradiction, although very little plausibility, in maintaining that the pursuit, in every instance, justifies the end, and not conversely as most moralists suppose.)

To continue. There is much value in the pre-final stages, for at least there is knowledge and love in them. The problem of optimism, however, is the problem of the total value in the universe.

According to our author "the final stage contains the content of all the other stages, yet the value of the final stage does not contain the values of the other stages. Each stage has its own separate value" (§ 888). He believes he can prove, however (and his argument here is very painstaking), that the value of the final stage is infinitely greater than the aggregate value of all the other stages. "For," he concludes in § 892, "the value of the final stage is infinite, while the aggregate value of all the others is finite, since they all of them together occupy a bounded portion of the series." (This depends on the negative property of *not* being a bounded stage in an inclusion series, and not on the comparatively positive property of *being* an unbounded stage in an inclusion series.) Despite all his care, however, it seems evident that the author, had he lived, would have been constrained to reconsider his arguments at this crucial point. For in § 621 he wrote, "The C series may consist of indivisible terms, none of which is next to the other, and which are therefore infinite in number," and this possibility is not at all affected by zero and completeness being the two boundaries of the C series.

As his argument stands, however, the proof of optimism depends upon this infinity of the final stage and upon the relative insignificance of the finite aggregate of the prefinal stages. Dr. McTaggart is not one of those who believe that it would be better to have no universe at all than a universe sullied by a single lie. On the contrary he argues that there is nothing repugnant to virtue in the necessary acquiescence of every self at the final stage in all the misperceptions, misery and defects of this great aggregate of prefinal stages. I do not see, however, how he could deny that our final perception might have the quality which, in the erroneous form of assumption, we should describe by saying that a universe which contained no misperception, or misperceptions very different indeed from those which we encounter, would in many ways be a much better universe.

The final stage must contain pain. For any self at this stage must regard some other self with love and affection and not merely the final stage of this other self but all its stages. The less adequate of these will contain pain and misfortune with which a self at the final stage must feel sympathetic pain. Yet in the final stage the pleasure will always infinitely exceed the pain.

Hence optimism is securely established, but we may not hold any simple-minded theory of meliorism, or of necessary progress as time appears to go on. The *amount* of perception must increase, but the increments in such amounts are not necessarily increments in the positive value of the stages. The proportion of good in the universe may "oscillate," and excellent things, so far as we can discern, may be clouded over in a thickening bank of gloom. All that we know for certain is that there is a final reward compared with which all the evils in the interim are as nothing at all.

This is a long review of a long book which is crammed with substance from the first page to the last. Other reviewers, I daresay,

would have made very different selections from it, and I fear I have offered a conspectus not terse but inadequate. Yet, in a way, every conspectus must be inadequate, precisely because one of the greatest merits of the book is its illuminating discussion of incidentals; and, above all, the amazing stimulus that comes from being forced to consider familiar topics from an unfamiliar angle. I do not know if it is a great book, but it has many of the qualities of greatness. And I do know that if it is not a work of genius, it is very like one. To define genius is beyond my powers, but I suspect that philosophical genius cannot be very different from an unusual capacity for formulating a comprehensive principle and holding fast to it without confusion through all the labyrinthine speculations which an earnest application of the principle necessarily entails.

JOHN LAIRD.

Ethical Studies. By F. H. BRADLEY, O.M., LL.D. (Glasgow), late Fellow of Merton College, Oxford. Second Edition, revised, with additional Notes by the Author. Oxford: At the Clarendon Press, 1927. Pp. ix, 344. 15s.

A BOOK that has been more or less accessible to, and greatly appreciated by, philosophical students for more than half a century, the work of a writer to whom the highest honours have been with general approval accorded, and that is now reproduced with comparatively slight modifications, hardly calls for a review of the usual kind. It may be assumed that most people who are interested in philosophy have read it or will read it. It is well known at least that it was the first book in which the Hegelian view of the moral life was made accessible to English readers in a clear and interesting form, and in which current English conceptions were criticised from that standpoint. The previous writings by Hutchison Stirling were generally felt to be lacking in lucidity and breadth of outlook, and the important ethical work of Green had not yet been made public.

The first edition of this book was published in 1876, almost immediately after the appearance of the first number of *MIND*; and it was reviewed by Sidgwick, not very favourably, but with some recognition of its importance, in the October number of the same year. Sidgwick treated it, on the whole, as the work of a somewhat immature writer with an imperfect understanding of the foundations on which the Utilitarian theory rested. He referred to it as 'crude and immature,' and said that Bradley's 'apprehension of the views which he assails is always rather superficial and sometimes even unintelligent'. With this judgment may be contrasted that of Bosanquet, quoted in the Preface to the second edition, that it 'suffered from the excess of thought and experience

which it contained. . . . A page of it would dilute into a hundred of any other'. Probably a just estimate would fall somewhere between these two pronouncements. Against Sidgwick it may at least be urged that the Utilitarian theory, as it existed at the time when Bradley began to write, had not yet been enriched by those subtle modifications that were elaborated by Sidgwick himself, which were perhaps not fully appreciated by Bradley, but which at least were duly noted and subsequently discussed by him in a separate Essay. Against Bosanquet's eulogy, on the other hand, it may be right to say that the condensation of Bradley's statements cannot always be regarded as a merit. He often throws out hints that one wants to see expanded into definite statements; and his criticisms are sometimes scornful comments rather than carefully reasoned expositions of his grounds for difference. They often seem to imply an inadequate recognition of the need for a more detailed examination of the basis for the opinions that he attacks. These were surely not adopted from sheer perversity. The saying of Coleridge, that until we understand a man's ignorance we must presume that we are ignorant of his understanding, may be applied in such cases. I think it is true to say, for instance, that Bradley did not sufficiently recognise that the Utilitarians set out, as he himself did, from a political or legal view of the moral life. The English and the Prussians are both eminently political peoples; but the English have learned to think primarily of individual rights, whereas the Prussians have thought mainly of the rights of the State. The ethical views of the two peoples have tended to be largely coloured by the legal conceptions that are naturally connected with these attitudes. Both think of morality as resting, in Bosanquet's phrase, on 'claims and counter-claims'; but the English tend to think primarily of the claims of individuals, whereas the Prussians have tended to think of the rightful claims of the social whole. I believe that Bradley did not sufficiently realise that the Utilitarian theory, like his own, set out from this political point of view; and that it was led afterwards, as he himself was, to a larger conception. Utilitarianism passed from political propaganda to the general conception of the mitigation of pain and the promotion of joy—surely a very worthy aim, though not one that can be readily reduced to a definite calculus and that is not very well expressed by such terms as 'pleasure' and 'happiness'. Bradley himself passed, in like manner, from the legal conception of morality to the religious conception of the realisation of the supreme values. The chief interest of the *Ethical Studies*, and especially of the Second Edition, seems to me to lie largely in the increasing prominence of the latter attitude. It brings with it an increasing emphasis on the place of feeling; and in that way it brings Bradley somewhat closer to the hedonistic position, though not to the conception of a hedonistic calculus. This change was made more fully apparent in *Appearance and Reality* and in some of Bradley's other writings.

A statement made in *Appearance and Reality* is quoted in the Preface to the present Edition, in which the book is referred to as one 'which, in the main, still expresses my opinions . . . (and) would have been reprinted had I not desired to rewrite it'. With a view to that rewriting, he had set down a number of notes; and these have now been carefully inserted in their proper places by his brother and sister, with the assistance of Mr. H. H. Joachim.

The notes are not very numerous and not very long, and they are chiefly concerned with psychological problems. Perhaps their most notable feature lies in a somewhat fuller recognition of the place of feeling in the moral consciousness. On page 42 there is a slight modification of the view that is taken in the earlier edition of what constitutes compulsion; and some further suggestions bearing upon that are made on pages 44 and 45. On pages 94, 101, 107, 108, 110, 114, 160 and perhaps 211, he makes some considerable modifications in his criticism of Hedonism; but his more general objections remain. On pages 169 and 170 he indicates some corrections and some doubtful points about heredity. On pages 182 and 189 he expresses a more definite recognition of the conception of 'justification by faith,' which was more fully emphasised in some of the later chapters, and which indeed forms one of the most distinctive features in his treatment of ethical conceptions. I understand him to mean by it the conviction that the Good is realised in spite of our individual imperfections. Certainly, without some such conviction, most of us would have to feel that 'there is no health in us'. On page 198 he acknowledges that what is morally right in a particular case may be open to doubt. On page 200 he recognises that the traditional basis of morality is not enough. On page 205 he raises the question whether all morality is social, which is to some extent discussed later—especially on pages 231-232. On page 211 he urges that a man has sometimes a right, and even a duty, to 'please himself'. On pages 219 and 228-229 some questions are suggested about self-realisation and self-regarding duties; but it can hardly be said that the questions are at all definitely answered. On page 235 he notes that morality may become instinctive; and that such morality may be better than that which is more self-conscious. On page 237 he notes that Good is wider than the *moral* good. 'It is not true that nothing is good but a good will.' This had been previously brought out in the criticism of Kant; and it is further emphasised on pages 244-245, where it is noted that the highest good tends to pass into the Beautiful. One would have liked to see this more fully explained and emphasised. If it had been more fully realised, it might have convinced Bradley, as it appears to have done in the end, that there is a larger element of truth in the hedonistic position than he was at first prepared to concede. This was to some extent brought out in *Appearance and Reality* and in other later writings; and Bosanquet supplied more fully what was wanted by his emphasis on Value. Bradley and Bosanquet have almost to be regarded as one person—a very notable person! Neither is readily intelligible

without the other. On page 260 there is a note about the place of feeling in the stimulation of desire, which is said by the Editors to be obscure. There is certainly some awkwardness in the wording; but I think the substitution of 'an idea' for 'the idea' would make the statement more readily intelligible. On pages 269-270 there is some discussion on the meaning to be attached to 'lust' and 'appetite' and to 'a voluptuary'. There is also a further reference to lust on page 275. The meaning of selfishness is somewhat carefully considered on pages 276 and 283. On page 280 it is noted that 'unselfishness' may even be a fault. On page 289 he admits an exaggeration in his emphasis on *doing* in the moral development of children. 'From the first,' he says, 'the child's world does not depend merely on what it *does*'.

On page 296 he explains what was really meant by the phrase that 'to form habits is to fail'. It means properly that we should form the well-considered habit of not forming habits that are not well considered. On page 324 he holds out an olive branch to 'Realism' of the newer kind. It is, I suppose, clear (though perhaps McTaggart would have dissented) that the Hegelian view is not 'idealistic' in the sense in which that term has been commonly understood—i.e., as implying subjectivism. But this is only hinted at in the note that is here referred to. Of course, his view about this is more fully given in *Appearance and Reality* and other later writings. On page 325 he makes a brief comment on Protestantism as having grossly perverted the doctrine of 'justification by faith'; but this also is not explained. Probably what is meant is sufficiently obvious. On page 330 he emphasises the unity of Nature with the Divine, and on page 332 he notes the limitation with which unity with the Divine has to be interpreted. On page 337 he admits an error in objecting to the French conception of a *religieux*. He says that his statement about this 'was wrong and due to ignorance'—a noble confession! On page 344 he expresses his gratification at the decay of Positivism. He believes 'that since the revival of the study of philosophy in England some sixty years ago no young man who has studied philosophy has joined the Positivists'. Might he not have added that there has been some decay in *all* forms of dogmatic religion?

It would, I believe, be hardly fitting to offer any general criticism on the views contained in a book that is more than fifty years old and that its author had desired to rewrite. We are not entitled to assume that the notes he had made contained the only modifications that he might have introduced; and, in general, they can hardly be said to contain more than hints of the changes that he would have made. But perhaps it may not be out of place to make one comment of a general kind. Bradley's general view of morals is based very largely on that of Hegel; but it depends a good deal also on the analysis of the moral consciousness that is given in the first Essay. The analysis that is there given is very careful and thorough; and, in the main, I believe it may be regarded as original.

But it is clearly an examination of the views that are commonly entertained by relatively unsophisticated Englishmen; and we may not unfairly ask whether quite the same results would have been reached if a study had been made of the views of a similarly unsophisticated Hindu or an ancient Jew or the representative of some other tradition. The English, as I have already noted, are a highly political people; and they probably tend, more than most other peoples, to think of morality largely from a legal point of view, with a strong emphasis on 'claims and counterclaims'. They have, I suppose, been helped in this by their reading of the Old Testament. In a somewhat different way, the Prussians tend, in an even higher degree, to emphasise the authority of the State; and Hegel, from whom Bradley derived most of his inspiration, was much influenced both by the English and by the Prussian traditions. Hence Bradley was naturally led to give a degree of attention that was possibly rather excessive to the legal aspect of the moral consciousness; and his first Essay is largely concerned with the exact conditions in which punishment is regarded as being due to a wrong-doer. His general theory comes from Hegel; and his particular analysis is that of a typical Englishman. Such an analysis is undoubtedly of great value; and perhaps Bradley has carried it out with more care and subtlety than any one else; but it is probable that somewhat different conclusions might have been reached if a different people had been under consideration. It is common in India, for instance, and it has been common in some other countries as well, for men to suppose that they may quite rightly be punished for deeds that were done in a previous incarnation, about which they are confessedly entirely ignorant. The ancient Jews, in a somewhat similar manner, seem to have thought that it was quite legitimate that punishment for a man's evil deeds should fall, not only on him, but on his descendants for many generations; and that the punishment might be transferred to some beast or to some innocent person willing to offer himself as a substitute. Such views have been not altogether unknown even in our own country. I do not mean that they are views that can be defended; but is it certain that the views that are commonly accepted by a comparatively unsophisticated Englishman—the so-called 'plain man'—are to be accepted as they stand or with only slight modifications? Is it even certain that the same views will be held by the next generation, educated with less emphasis on the aspect of discipline? An assumption of this kind appears to be involved, at least to some extent, in Bradley's starting-point, and is implied in some of his criticisms on Utilitarianism. But I may be wrong about this; and, in any case, I must not enlarge upon it. The one thing that appears to be quite clear is that his view of the moral life had become gradually less legal, more psychological and more religious. It may be well to note, in this connexion, that in a paper in the *International Journal of Ethics* in July, 1894, on 'the principle of social surgery' he set forth some views about punishment that appear to be pretty far removed from

those that are indicated in *Ethical Studies*; and he there states (p. 273) that the views set forth in his earlier account are one-sided, though true as far as they go. Many readers would probably think that the later views are also one-sided. Perhaps it must be admitted that his statements could seldom be regarded as conclusive.

With all his subtlety and deep devotion to philosophic thought, Bradley could never be described as a 'dry light'; and, like most people, he was probably less so at 30 than at 60. The chief difficulty in reading his writings lies in their bright allusiveness and in the fact that his views on any subject are hardly ever to be found completely at any one place or in any one book. It is to be hoped that some one will collect his scattered papers. But, throughout his long life, he combined, like Socrates, a ruthless dialectic with a fervent devotion to the best traditions of his people, a scorn of sophistry (perhaps sometimes, at least in his earlier writings, an unmerited scorn) with a firm determination to pursue truth, wherever it might lead. And he expressed his views with a wealth of illustrative reference that makes the reading of his books a source of perpetual delight and fresh discovery. In this sense, Bosanquet's enthusiastic eulogy cannot be said to be exaggerated. On the whole, even this early effort is so fine a work that one feels oneself hardly worthy even to praise it. It is a gold mine of ethical and psychological insight. I suppose the parts dealing with 'My Station and its Duties' and with the relations of morality to religion are those that retain the most lasting value.

It is to be regretted that the book has not been provided with an Index. Unfortunately also the Table of Contents at the beginning is hardly adequate. But we cannot be too grateful to the Editors for having made so important and fascinating a work once more accessible to all who are interested in such studies.

J. S. MACKENZIE.

VII.—NEW BOOKS.

Conscience and its Problems: An Introduction to Casuistry. By KENNETH E. KIRK. Longmans, Green & Co., 1927. Pp. xxiv, 411. 16s.

THIS work is the third of a series of "Studies in Moral Theology" written by the author. In the first of these he had "put forward a tentative scheme for the development and teaching of moral theology in the Church of England". In the second he had inquired how far such an Anglican development could be based upon, or must diverge from, the older Catholic type of moral theology. In the present work he makes a beginning in the systematic treatment of the subject. The contents of the book are summarised by the author as follows: "The first chapter . . . treats . . . of conscience—its duties, privileges, limitations and dangers. The second considers the deference which loyalty demands that conscience should pay to principles commended by authority of varying degrees. The third and fourth chapters deal with the nature and history of casuistry. . . . In the remaining chapters [the] problems [produced by the interaction of conscience and loyalty] are classified under the three main headings of Error, Doubt and Perplexity; rules of procedure which have at least the sanction of long recognition by the Church behind them are propounded as a help to their solution; and the validity of such rules is subjected to a preliminary examination by applying them to questions of immediate interest or of special value as test cases" (pp. xvii, xviii).

Although the book really corresponds to the first part of a systematic treatise, it may also be said to be an "introduction" to casuistry in the ordinary sense in which an introduction is designed to give the beginner or general reader a preliminary view of the nature, problems and methods of the subject of study. The book is at any rate admirably fitted to carry out such a design: it is much more readable than the ordinary Catholic manual; to borrow a phrase which the author applies to the work of an earlier writer, it is a "model of serious and thoughtful treatment"; the illustrative problems drawn from present-day moral practice are discussed with careful discrimination and judicial impartiality. In short, the book shows us moral theology at its best. And yet even the reader who is free from any hostile prepossessions will be left, I am afraid, with an unfavourable impression of the subject. The reason why this should be so is perhaps not difficult to see. If the task of casuistry is regarded as that of reaching a more precise definition of duty in special circumstances and of helping the conscientious inquirer who is anxious to do his duty to the full but not clear as to what his duty is, there would seem to be no reasonable objection to such a study. But in the official sort of casuistry which is called moral theology the subject is approached from a different point of view. The aim is rather to guide the priest in the confessional as to the standard of conduct which he is to require of the penitent and as to the conditions upon which he can grant or refuse absolution. Mr. Kirk has this aspect of casuistry quite definitely in view. Now the priest

naturally must look to the minimum standard that is accepted by the Church; he has no right to impose his own personal standards on the penitent or to play the part of a harsh and severe judge. He may, of course, advocate the adoption of stricter standards and urge the authoritative recognition of them by the Church, but until such recognition is given—and in the Anglican Church, as Mr. Kirk points out, there is far less provision for obtaining authoritative decisions than there is in the Roman—he has no right to put the stricter standards in force. Now the necessity of always having a minimum standard in view is bound to affect the casuist's whole line of argument, and can hardly but impress the layman unfavourably. There is no need to deny that the system of ecclesiastical discipline has its uses, and that moral theology therefore may have an important esoteric value of its own. But a definite bias is then imparted to the casuistry, and even Mr. Kirk's otherwise admirable discussions do not seem to escape it.

Mr. Kirk regards the problems of casuistry as arising out of the apparent conflicts between conscience and loyalty to society or, more especially, to the Church; and he seems to expect that his critics may accuse him of putting the duty of loyalty too high. I should rather be inclined to say that he does not put it high enough, and does not bring out clearly enough the paramount claims of loyalty. In discussing the moral perplexities in which the trade unionist may be involved by a 'general strike' he says (p. 361) that a general strike "is a war on the community" and "such a war, like other wars, is justifiable if the grounds for waging it are sufficiently grave". But to any one who accepts the principle upon which, e.g., Green maintains that there can be no right of an individual *against* society, such a 'war on the community' must appear to be totally indefensible. It may seem unfair to fasten upon a single phrase like 'war on the community,' but then the phrase is quite crucial. *Mutatis mutandis*, one would suppose that the same general principle would apply within the Church—we are not here concerned with any special difficulties in which the Anglo-Catholic may be involved. Now Mr. Kirk either in the last resort rejects the principle or else leaves the application of it fatally ambiguous. He says (p. 227): "If conscience commands a certain course of action, the individual is bound to follow it, whatever the Church may say". But we first want to be quite sure that the conscience which issues the command is adequately conscious of the obligations of loyalty, and the phrase "whatever the Church may say" rather suggests that it is not. "If [the individual]," we are told, "finds himself bound in conscience . . . to disobey a recognised practice of the Church, to defy his bishop, to disregard his confessor, to introduce unauthorised forms of service, his duty lies that way, and he cannot be blamed for doing it." I cannot conceive a loyal conscience indulging in such vagaries as these, nor would it deserve much respect if it did. Here again there may be a certain unfairness in emphasising one side (and perhaps the less prominent side) of Mr. Kirk's view to the exclusion of the other. But such passages as those quoted seem to indicate a lack of clearness about the fundamental question of authority and obligation.

As I cannot take space to discuss the treatment of casuistical problems in detail, I will now merely refer to one or two points of historical interpretation on which Mr. Kirk seems to me to have gone astray. Two sections in the historical part of the book deal with 'Casuistry and the Gospels' and 'St. Paul'. If a layman may venture an opinion in such matters, these are the weakest sections in the whole book. Mr. Kirk seems to think it necessary to find some authorisation for casuistry in the teaching of Christ. But, so far as the kind of casuistry which is exemplified in moral theology is concerned, could anything be more plain than that

Christ had no patience with it? We need not think only of Pharisaic casuistry. His answer to his own disciple's question, How often shall my brother sin against me, and I forgive him? is completely typical of his attitude. The attempt to get casuistry and a casuistical 'technique' out of the Gospels seems to be hopelessly artificial. St. Paul, on the other hand, must be regarded, one would have thought, as a master of the very highest type of casuistry. Much of the guidance which he gives to the Corinthian Church in the first Epistle is surely unsurpassable alike for its grasp of principle and for its fine moral spirit. Yet Mr. Kirk's section is full of what I can only describe as carping criticism and misconstruction. True, he says at the end, that St. Paul was "one of the world's greatest casuists," but I cannot believe that any reader would have gathered that impression from what had been said before. I had better give one example. When St. Paul says "if meat maketh my brother to stumble, I will eat no flesh for evermore," he is charged with failing to discriminate between different types of weaker brethren; his advice on this occasion is contrasted sharply with his own action in the matter of circumcision (*Galatians*), as regards which he would make no concession but denounced his opponents as 'false brethren'; and some comment is added on "these vacillations of St. Paul". But surely the two cases are quite different: in the second the very principle of Christian liberty was at stake; in the first the principle was taken for granted, and the question was merely whether the liberty was to be used in particular circumstances in a way which might tempt another person to act against his conscience. The contrast between the two cases, instead of showing any vacillation on St. Paul's part, shows rather the sureness of insight with which he distinguished when a question was one of principle and when it was not.

The other case of misunderstanding which I have in mind would hardly, perhaps, be worth mentioning, were it not that the erroneous statement is repeated several times and is really unjust to the eminent man about whom it is made. In discussing the question whether the moral judgments of conscience involve a rational factor or are mere expressions of feeling, Mr. Kirk takes Newman as representing the latter view, and does so apparently on the strength of a couple of sentences from a letter quoted in the *Apologia*, in which Newman, some six months before he entered the Catholic Church, says: "My own convictions are as strong as I suppose they can become: only it is so difficult to know whether it is a call of *reason* or of conscience. I cannot make out, if I am impelled by what seems *clear*, or by a sense of *duty*." Mr. Kirk takes this to mean that conscience, being definitely contrasted with reason, is not rational, but is a mere sentiment of moral approval, and he thinks that Newman, although entirely convinced in his reason, was waiting for this sentiment to emerge. Now, without troubling to quote what Newman expressly says elsewhere about conscience being in part a judgment of the reason, it is enough to point out that we know quite well from his letters what were the considerations that kept him back so long from the final step, and among them was the fear that there might be "some secret undetected fault" in himself which was the cause of his belief. In an earlier letter quoted in the *Apologia* he says: "I wish to go by reason, not by feeling". Even in the letter which Mr. Kirk quotes Newman says in the very next sentence: "I have waited, hoping for light"; and he goes on to give the further reason that "this waiting subserves the purpose of preparing men's minds". Mr. Kirk seems to forget that Newman's conscience had a difficult problem to solve, and that the things that 'seemed clear' were not the only things to be considered in reaching a final assurance of his own personal duty.

H. BARKER.

The Metaphysics of Pragmatism. By SIDNEY HOOK. With an Introductory Word by John Dewey. The Open Court Publishing Co., Chicago and London, 1927. Pp. 144.

This Essay presumably represents work done for a Ph.D., and has been partially published in the *Journal of Philosophy* and the *Monist*. As the work of a budding philosopher it must be pronounced decidedly promising. For though the definition of its plan, the clarity of its style and the arrangement of its material leave something to be desired, and it is by no means easy reading, it is distinctly interesting and contains a number of valuable *aperçus*, with a liberal sprinkling of happy phrases. Dr. Hook acknowledges indebtedness to Prof. M. R. Cohen of the College of the City of New York, and to Professors Woodbridge and Dewey of Columbia, and their influence is easily apparent and has determined his aim, which may be briefly described as being to effect a synthesis of Dewey's pragmatism with the metaphysical realism of his two colleagues.

Prof. Dewey, in sponsoring the book, points out that whenever a novelty appears in the world of thought its discontinuity with the old is sure to be exaggerated; it is denounced as utterly subversive and is misunderstood because it is interpreted in terms of the old ideas it corrects; its real connexions with the old beliefs are only gradually perceived, though in the end its history is re-written as a continuous development out of the old. He proceeds to accord to Dr. Hook's work the high praise that "more than anything on its subject with which I am acquainted, it expresses an equilibrium . . . between that newer movement which goes by the name of pragmatism and instrumentalism and essential portions of classic thought." He also refers to the fact that Dr. Hook avoids definitions and leaves the meaning of terms like 'metaphysics' and 'pragmatism' to grow in his reader's mind.

This is more dubious praise, because some may feel that Dr. Hook's usage of his terms exacts too much from the intelligence of his readers. It is no doubt the practice of the sciences to start with current meanings (which are frequently misnomers like 'evolution') and to lick them into very different shapes, by dint of constant converse with the facts which they are used to elicit. But still in this procedure it is well to start with meanings which are commonly understood and not ambiguous or in dispute. Now unfortunately this is not the case with 'metaphysics'. It is commonly used in two quite different senses. It may mean the science of ultimate or basic reality (or principles), from which scientific realities (or truths) are to be deduced. It is also taken as the study of the possibility of a final synthesis of the sciences, or the science of ultimate problems. But Dr. Hook usually seems to mean by it a good deal less than either; nothing more in fact than the reference to reality in judgment, *alias* the fact that knowledge claims to be 'about reality'. It is only, moreover, by taking 'metaphysics' in this sense that he gets his problem, and effects a fusion of pragmatic method or logic with realist metaphysics.

But he thereby lays himself open to the charge of confusing logic and metaphysics, and misunderstanding the *logical* reference to reality. The recognition of reality in judgment is surely a purely formal affair, like the truth-claim of judgment. It is involved in the reference to any 'real' in any universe of diction, however imaginary and fictitious, and bestows upon it no metaphysical status in either of the current uses of 'metaphysics'.

His use of 'pragmatism' is almost as unfortunate. He tries to limit it to the doctrine of Dewey in its narrowest acceptation, though he labours to identify it with Peirce's 'pragmaticism'. He labels it "social and

scientific" (p. 9) and opposes to it "the mystical and nominalistic pragmatism of James" and "the personal and consolatory pragmatism of Schiller"; elsewhere (p. 67) he groups together "Mach, Schiller, and Ogden and Richards," as a 'school' of "romantic positivists" who hold that "scientific laws do not indicate facts of natural structure" (!) But he makes no attempt to justify these curious epithets, and the truth would seem to be that he knows very little about the other pragmatists, and in particular about pragmatic logic. Yet he would have found the logical writings of, e.g., Alfred Sidgwick, much more serviceable than the symbolic formalism which seems to be the only sort of modern logic with which he is familiar. He has in consequence to try to graft an epistemology of growing meanings developed by progressive judgments on a logic which deals only in 'propositions' with supposedly rigid terms, and to persuade himself that "the logic of demonstration is the logic of discovery grown cold" (p. 88), although he cannot but see that to verify is to affirm the consequent (p. 90), that there must be a "freedom to select the truth-values which give propositional functions meaning" (p. 88) and that "logic can never be a closed system so long as science is not" (p. 93).

It is a further consequence of the misfit between his logic and his theory of knowledge that he underrates the value of pragmatism as a method, and imagines that it needs bolstering up by a metaphysic, in the sense of a doctrine of ultimate reality. This would appear to be a serious underestimate of the importance of methods. Actually pragmatism is, above all things, the tardy discovery by philosophy of the authentic method of science, which puts an end, in principle, to the inveterate misrepresentations of this method that have clogged the logic books for over 2000 years. Consequently it stands to reason that scientific method is applicable to metaphysics also, if metaphysics aims at being a science. When it is so applied, the effects on the old questions are so devastating that they quite cease to be unanswerable. They are seen to be futile and unmeaning. For example, the more competent we grow to deal with the real we encounter in knowing, the less need have we to ask what is the nature of absolute reality in itself; the more valuable and efficient grow our scientific truths, the less shall we crave for an 'absolute' truth which no scientific method can reach or utilise. Our 'reals' become relative to our 'truths,' and our 'truths' to the experiments by which they have been ascertained, and *together* they cease to claim finality. Science simply has not any use for reals which are unknowable and truths which are incorrigible; they sink to the status of overbeliefs which are harmless only while they are otiose.

Consequently there is no need whatever for any pragmatism to accommodate itself to any doctrine which flatters itself that it has grasped ultimate reality. The 'objects' of such a doctrine are objects, not of science, but of faith, and its 'objectivism' is just obstruction to scientific progress and blindness to the implications of scientific method. It is clear also that the charge of 'subjectivism' brought against the pragmatic method is either childish or malicious or both; it means gross failure to understand the method, and answers itself. Instead of defending himself against such silly accusations the pragmatist should occupy himself with admonishing the various sciences not to grow too fanatically attached to the 'truths' which formulate what it is, for the time being, best to believe about their subjects, and to the 'reals' which are postulated for the truths to refer to. Any pragmatic 'metaphysic,' therefore, must be as provisional and subject to revision as is science; but it should also endeavour to be as progressive.

F. C. S. SCHILLER.

Vocabulaire Technique et Critique de la Philosophie. Revu par MM. les Membres et Correspondants de la Société française de Philosophie, et publié, avec leurs corrections et observations, par ANDRÉ LALANDE. Paris: Félix Alcan, 1926. 2 vols. Pp. vi + 1065.

The enormous amount of co-operative labour of which these volumes are the result may be best gathered from the story of their compilation. The idea of the work and the method of its composition were due to two articles of its editor, Prof. A. Lalande of the Sorbonne, on the criticism and fixation of philosophical language. Under his direction, the task of composition, discussion and correction continued over twenty-one years, the offices of the *Société française de Philosophie* constituting a sort of international clearing-house for the exchange of ideas between French and Foreign Members and Correspondents. The editor was assisted in the first draft of articles A-F by MM. Couturat, Delbos, Lachelier, Belot, and Halévy, drafts of the remainder were made by the editor alone. These compositions were issued periodically as *cahiers d'épreuves* in the Society's *Bulletin*, members' criticisms and annotations being presented for discussion at the annual meetings. Many of those comments are now incorporated in lengthy footnotes and "Observations," and the value of the volumes consequently enhanced.

The Vocabulary proper occupies 975 pages, and its Supplement, covering 88 more pages, contains articles, some amplificatory of those in the body of the work, others on newer terms not already noticed. Uniformity of arrangement and variety in the use of printer's fount secure a minimum of inconvenience in consultation and cross-reference. Two columns go to the page, which is again divided horizontally, the top part being occupied with the main text. The term is first defined in accordance with each of its current usages, then a critical section follows, commenting on these different senses, and indicating preferences agreed upon *en séance*. The lower part of the page is devoted to illustrative citations, French and foreign (the latter being also translated), and to comments of Members and Correspondents. Here also points of disagreement and uncertainty are indicated and consequently the more original parts of the compilation are to be found. Each title-word is followed by the nearest foreign equivalents.

The merits of the work are many and varied. It happily avoids the dogmatism of a dictionary; it specifies fully and distinguishes usefully between the several acceptations of ambiguous terms. And it must have been a somewhat delicate problem to assign limits to the range of terms which should fall within the purview of a philosophical encyclopedia. All important terms of Logic, Epistemology, Ontology and Ethics are, of course included, but it must have been less easy to decide what to include and exclude from the nomenclatures of Natural Science, of Psychology and Sociology, Economics and Law. A too generous decision would have resulted in a work of inordinate length, and one which, further, ceased to be specifically philosophical. Accordingly, all terms in Psychology and Sociology relating only to quite special problems are omitted. Again, of philosophical terms proper, those historical usages now fallen into disuse are excluded, unless required to justify or explain some present usage. Such an undertaking can never be complete or final, but its excellence far outmeasures its shortcomings. Contributors are obviously well informed on contemporary work, especially in epistemology. The article on *Phénoménologie*, for instance, takes Husserl and his followers into account, and contributions on logic and mathematics frequently incorporate specialised usages of Russell and Couturat.

It is difficult to convey an idea of the extent of traditional terminology

covered. The "Observations" are sometimes suggestive, e.g., *Métaphysique* (9 pp.), *Dieu* (5 pp.), *Devoir* (3 pp.), *Idéalisme* (8 pp.), *Relation* (3 pp.). But newer terms, philosophical and scientific, have certainly not escaped editorial attention. In Logic and Methodology, besides contributions from French writers, there are frequent references to Bradley, Russell, and Keynes. Johnson's volumes apparently appeared too late to be utilised. Especially informing are the articles on *Idée* (8 pp.), *Langage*, *Nature* (11 senses distinguished, with useful criticisms); *naturel* (19 senses); *nécessary* (10 senses, 3 applying to relations and 6 to 'objects of thought'); *Implication* ('formal' and 'material'); *fonctionnel*; *propositionnelle* (*fonction*) of Russell; *multiplication logique*; *Irrationnel* (with Meyerson's sense); *Assomption* (note on Meinong); *Connotation* (Mill followed, with note on Keynes and Goblot); *produit logique*; *Corrélation* (long footnote by Piéron, distinguishing different types, viz., Bravais-Pearson, Spearman, Yule-Sheppard, Brown-Thompson).—In Psychology, especially useful are the contributions of Claparède, Delacroix, Mentré, Egger, Piaget, and Dwelshauvers. The selection includes *Psychogramme*, *Psychogramme professionnel*, *Egocentrisme*, *eidétique*, *Comportement*, *Behaviourism*, *Bovarysme*, *Fonction*, *Organicisme*, *profil psychologique*, *pseudo-concept*, *réflexe*, *Schizophrénie*, *sensibilité différentielle*, *structure*, *Mneme* (usefully distinguished from Memory), *Forme* (which might have appeared under *Gestalt-theorie*).—It was a happy thought to include certain of the newer terms in mathematics and physics which of late years have found their way into discussions on cosmology and epistemology. There is, e.g., a first-rate article, *Atom*, which, after noting the traditional usages, incorporates notes by Meyerson and Berthelot on the work of Thompson, Rutherford and Bohr; besides contributions on *Energie*, *Entropie*, *Force*, *Quanta*, *Isotrope*, *Analyse*, *Fonction*, *Hyperespace*, *Nombre* (reference to Russell), *Algèbre de la logique*, *Tenseur*, *Métagométrie*.

After such profusion and excellence in execution, it seems almost ungracious to suggest what may be a few minor imperfections and inadequacies. For instance, the definition of Fact (*Fait*), as "what is or happens, considered as a real datum of experience on which thought may rely," seems too wide in including events and other entities, and too narrow in limiting "facts" to the range of experiential data. But the usage of "fact" favoured in Cambridge of late years would probably be satisfied by Husserl's sense, appended. "Event" is omitted, except incidentally in connexion with "Fact". The mysteries of the term "Content" might have engaged the wits of Members and Correspondents, and the expressions, "Extensive Abstraction" and "Incomplete Symbol" might have found a place. One would further have welcomed a selection from the terminology of mediaeval philosophy, especially in view of the revival of interest in Thomism. But in any case these deficiencies in the Vocabulary are microscopic when compared with its fine abundance. It is a piece of work brilliant in conception and performance.

STANLEY V. KEELING.

Die Erkenntnis der Wirklichkeit. By HANS BEGGEROW. Max Niemeyer, Halle, 1927. Pp. xlii, 558. M. 22.

This book gives a valuable and at least arguable "Weltanschauung," which claims to be the logical development of the philosophy of Kant. Whether he would have acknowledged his alleged offspring seems to me very doubtful, and one of the criticisms which I should bring against the book is that it does not make it in the least clear at what point the author's own views begin and Kant's end. It is certainly not intended only as an exposition of Kant but also as a development of the great philosopher's

ideas further than they were carried by himself, but much in its contents seems to gain an advantage to which it is not entitled by sheltering behind Kant's authority instead of being openly put forward in its own right. As an interpreter of Kant the writer brings out a good deal of importance with precision and lucidity, but his work suffers through his not having paid sufficient attention to the transcendental deduction, on which he hardly comments at all! He also interprets him as coming much nearer the admission that we can have real knowledge of things-in-themselves than seems right, and even treats the statement that some men have mystical "timeless experiences" as particularly close to the spirit of Kant in defiance of the latter's stern warnings against any fancy that we can have experience or sensations of the timeless reality. H. Beggerow praises the "Ideas of Reason" as the greatest contribution ever made to philosophy and the most important part of the Kantian view, but if Kant could have read this book he would surely have cried "Save me from my friends," for the chief value of the "Ideas" according to it is not that they are regulative ideals or even objects of faith but that they give knowledge of reality as certain as do the categories of phenomena and are capable of strict logical proof. How much of this view the author believes to be in accord with Kant is obscure.

This does not affect the merits of H. Beggerow's work as a commentary on the earlier part of the *Critique*, where there is less risk of this confusion between his view and Kant's, or as a system of philosophy. In the latter rôle it renders valuable service especially by bringing Kantian conceptions into relation with modern science. It also suggests a conception of appearance and reality that provides a promising line of approach. It will probably be felt that it does not succeed in bringing philosophy and science into a really organic unity, rather stating a few general principles of science and discussing detached scientific problems in a philosophic way; but then the former would be an almost superhuman task. However, the author might have treated the matter in a less external and disjointed fashion.

The view maintained is that experience presents us with approximately parallel sets of appearances, one of these being constituted by physical objects as actually perceived, another by the same objects as conceived mechanistically by natural science. The organisation of these appearances is the work of the mind and presupposes Kant's *a priori* categories. Only the author seems to treat them as self-evident without troubling to give Kant's proof. He will also give offence by treating the main laws of motion as axiomatic consequences of the categories, though here he is approximately following his master.

Now the appearances, H. Beggerow maintains, even in their empirical nature, always point to a reality behind them. Even science is driven to this reality both by the antinomies and by the necessity of postulating something continuous to fill the gaps in the phenomenal system. For instance ether has been introduced in order to account for the interaction of things at a distance from each other; but the author holds that this is incompatible with the view of space as a function or a mode of acting rather than as a receptacle for holding material, and that the interaction must be explained by a supra-spatial and supra-temporal continuum connecting the different phenomena in question. He passes on, I fear without giving any adequate proof, to the view that this reality is spiritual, and then argues that the necessity of regarding everything as a unity drives one to postulate a God. The book is able and shows some originality at many points, it casts some new light on Kant and outlines an interesting and suggestive metaphysic, while it has valuable points to make on the philosophy of science. It is therefore worth attention, and any defects in the way of over-confidence, if unfortunate, are at least excusable.

A. C. EWING.

The Conception of Buddhist Nirvāṇa. By TH. STCHERBATSKY. Leningrad, Academy of Sciences, 1927. Pp. vi + 246.

Buddhism has been more talked about in the West than any other Indian system, and yet if we believe Dr. Stcherbatsky the positive results are almost non-existent. There is much to be said for this. He tells us that after a hundred years of scientific study we are still in the dark about the fundamental teachings of Buddhism. He himself and M. de la Vallée Poussin are two of the first living authorities on Buddhist philosophy, and yet much of this book is devoted to showing that de la Vallée Poussin's latest work on Nirvāṇa perversely misunderstands all the main points. He holds, it seems, that "at the beginning Nirvāṇa meant a simple faith in soul's immortality, its blissful survival in a paradise," and that what Buddha taught was nothing speculative, but yoga-practice, and "yoga is nothing but vulgar magic and thaumaturgy coupled with hypnotic practices". It is true that his views do not seem to have convinced anybody, but as he is a scholar quite as well equipped as Dr. Stcherbatsky, how is the onlooker to know that the author's views are any sounder?

The author holds that "the picture of the universe which suggested itself to the mental eye of the Buddha represented an infinite number of separate evanescent entities in a state of beginningless commotion, but gradually steering to quiescence and to an absolute annihilation of all life". We are not told how he has succeeded in reading the mental eye of the Buddha, nor does he make it clear that still others have tried to do the same thing with very different results. We hear nothing about the long labours of Pāli scholars like Rhys Davids and Oldenberg. Another Pāli authority, Mrs. Rhys Davids, rejects the evidence of the Pāli itself. She maintains that Buddha's teaching has been "converted—? perverted by a monastic world," and that even Buddha's first sermon has been "edited". Of Prof. Radhakrishnan's discussion in these pages last year (p. 158 ff.) it is not necessary to say more than that he claims to take his stand on texts generally acknowledged to be Buddha's, although there is no such general acknowledgment, and that one of his most telling texts (the refutation of Yamaka) is actually attributed by the Canon itself not to Buddha but to a disciple.

Dr. Stcherbatsky says that his book might also have borne the title of the *Central Conception of Mahāyāna*. The latter and most important part of his book in fact deals not with what Buddha may have taught, but with theories held by his disciples at least half a millennium later. For them Nirvāṇa was not merely the ineffable goal of a meditating monk, but an ontological theory, and the nature of phenomenal experience was expressed as *śūnyatā*. This term is usually translated the void, and the theory has been called negativism or nihilism. But here a new interpretation of the theory is offered, and the term is translated relativity. To say that things are void does not mean that they are non-existent, but that they are devoid of independent reality. Nothing short of the whole is real. This certainly makes intelligible much that has often been treated as tiresome nonsense, but it is an interpretation to be carefully studied before judgment is passed upon it. Further, as discussed here, it is only the theory of one man, Nāgārjuna, and we should like to know how far there has been a development of meaning in the term *śūnyatā*, which is much older than Nāgārjuna. An appendix forming two-thirds of the book consists of a translation of two chapters from Nāgārjuna's chief work with Chandrakīrti's commentary thereon. This portion, quite apart from the author's theories, will be of the greatest help to anyone who wishes to go to the sources.

E. J. THOMAS.

Grundlegung einer ästhetischen Werttheorie. Band I, Das ästhetische Werterlebnis. By RUDOLF ODEBRECHT. Berlin: Reuther und Reichard, 1927. Pp. 315. 8 M.

Dr. Odebrecht is not of those who are content to give an empirical account of æsthetic experience. He wishes, in the manner of Kant, to answer the *quid iuris* and to guarantee the universal validity of æsthetic judgments. He uses a great deal of elaborate language, which makes his meaning difficult to see.

No one could have a more exalted idea of æsthetic experience. Dr. Odebrecht, like some others, believes that some metaphysical revelation is vouchsafed in it. His negative conclusions are that the "monothetic one-rayed act" of feeling and the theory of empathy are both "æsthetically indifferent," and that form in itself has a merely ornamental value. But what of the revelation?

It is necessary to realise that consciousness always constitutes its object by means of self-determined laws, and that its structural law is the ordering of the particular into the universal. Then it is necessary to realise the distinction between a "monothetic one-rayed act" (feeling directed to a concrete situation) and a mood (*Stimmung*). Further, the æsthetic experience, though a mood, is not vague but "determinately formed". It is an *Evidenzerlebnis*—an ordering of particulars in an experienced organic whole. In fact when contemplating a work of art it is necessary to have feelings directed to concrete situations; it is necessary to perceive form. The great moment arrives when the creative synthesis uses the necessary laws of consciousness and creates a new object. This object is a complex of pure form and so much of the subject matter as is left when the particular acts of feeling and their particular objects have been absorbed into the *Evidenzerlebnis* according to the laws of creative synthesis. Why is an æsthetic experience valuable? Because it is an ordering of a whole. Why is an æsthetic judgment universally valid? Because the whole is ordered according to universal laws.

The definition of value is perplexing; the necessary laws have to be taken on trust. There is, in spite of much reiteration, little to convince the reader that consciousness creates its object. Nor is much more satisfaction to be obtained on the empirical plane. His best point is that the distinction between the perception of a more determinate and the perception of a less determinate representative situation is æsthetically important. But the distinction is not clearly stated.

There are, however, many possible reactions to a work of art and who can affirm that Dr. Odebrecht does not react much as he describes? We cannot know much about his reaction; for in spite of complicated phraseology not much is clearly told. He speaks a great deal about pictures. On the whole one feels that the picture itself is almost lost in the experience of it which he describes.

HELEN KNIGHT.

Les Doctrines Politiques des Philosophes Classiques de l'Allemagne. Par VICTOR BASCH, Professeur à la Sorbonne. Paris: Alcan, 1927. Pp. ix, 336. 30 fr.

This book, although only recently published, is a war book, written to defend the great figures of German idealism from the charge of being intellectual ancestors of Pangermanism, glorifiers of warfare and therefore responsible for the supposed excesses of their countrymen in recent times. As is proper when dealing with such accusations, M. Basch is mainly con-

cerned with Hegel (Leibniz, Kant, and Fichte being treated very cursorily and only by way of introduction), and devotes himself to providing, with the minimum of comment, elaborate expositions of all his political works. He says (p. 320) that he has forbidden himself to discuss Hegel's views and has confined himself to elucidating them, and he is as good as his word—or even better, for his expositions are summaries rather than elucidations. This is indeed all to the good, for owing to his difficulty and comprehensiveness Hegel certainly stands in very great need of summarising. But unfortunately he is also very difficult to summarise, no abbreviated exposition being capable of doing justice to the rich and suggestive detail wherein lies the main value of his writings. And M. Basch is forced to give us the system without the detail, not escaping the dilemma which appears to confront all would-be expositors of Hegel—namely that although the system is essential to any adequate account of his views any summary of it is necessarily abstract and therefore on Hegelian principles inadequate.

Any attempt to indicate further the contents of the book must however be avoided, as it would only be a summary of a summary, twice removed from truth. But it is worth suggesting that it might have succeeded better in attaining its professed object had M. Basch made clear the real nature of the charge which he supposed himself to be meeting, and devised a suitable method for meeting it. Is it that Hegel and his predecessors consciously advocated wicked doctrines? Or that they were, as wholly innocent writers might have been, the unconscious sources from which unscrupulous advocates of wicked doctrines have been able to draw arguments in their support? Is it the carefully reasoned charge of philosophers acquainted with Hegel's writings, or the more superficial one of plain men or publicists who have heard, at second hand and out of their context, some of his more exuberant remarks about the Germanic Spirit and the moral beauty of war? Neither type of critic is likely to be convinced by M. Basch's procedure. The latter, whom he mainly seems to have in mind, will certainly not be impressed by the exposition of the whole elaborate metaphysical system, and if told that the doctrine depends on it will probably retort that that is so much the worse for the doctrine; while the former will require much more discussion and much less exposition than M. Basch offers him. More interesting on general grounds, as well as more effective for M. Basch's purposes, would have been a serious attempt to detach the valuable elements in Hegel's political theory from the metaphysical theories and political prejudices on which it appears to depend and which rightly or wrongly constitute a real stumbling-block in the way of its acceptance and even appreciation. Is the task really as impossible as we are apt to suppose?

In any case it is not the task which M. Basch has set himself, so perhaps criticism of this kind is beside the mark. For within his self-imposed limits and methods M. Basch has written conscientiously and well, and his book is likely to be valued (amongst other things) for its full and fair expositions of Hegel's minor political works and for an interesting early chapter on the roots of German Political Theory in the history and literature of the eighteenth century.

O. DE SELINCOURT.

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VIII.—PHILOSOPHICAL PERIODICALS.

PROCEEDINGS OF THE ARISTOTELIAN SOCIETY. 1926-1927. N.S., vol. xxvii. **C. Lloyd Morgan.** Presidential Address: "Objects under Reference". [The paper hardly admits of being briefly summarised, as it introduces a special set of terms and symbols. It studies chiefly the relation between the object of perception and the two terms of the physical relation involved in perception *viz.*, that between the physical thing and the perceiving organism.] 'A Concept of the Organism, Emergent and Resultant.' [In this later paper the President aims at giving greater clearness and precision to the conception of emergence. He proposes (1) to follow Whitehead in using the term 'organism' in a wide sense to signify any entity in which the parts are so inter-related as to produce a substantial unity, (2) to use the term 'fellowship' in a wide sense to signify the mode of inter-relationship characteristic of organisms on the same level of existence. These widened notions are then used to define the conception of emergence. "A new mode of fellowship is emergent. . . . But . . . the emergent character must be traced down to the constituent members of the community" or organism (p. 155)—*i.e.*, it emerges in them—although it is only in the determinate new mode of fellowship that the emergent character finds expression, and, further, the new mode of fellowship cannot be deduced from the already existing one (p. 163). Such emergence does not involve any denial of 'resultant' advance on each level of existence; it only asserts that the advance from one level to another may have to be regarded as emergent. This incomplete summary may suffice to indicate the importance of the paper as an attempt to clear up an obscure notion.] **J. C. McKerrow.** 'Evolution and Contingency.' [An extreme evolutionary behaviourism, which would account for the whole evolution of animal forms and behaviour from "motile living things," in terms of two principles—Repetition in similar circumstances and "Accident," *i.e.*, the appearance of some new way of reacting. "There is no emergence of some entirely different kind of activity, namely, mental" (p. 31).] **Dorothy Wrinch.** 'Scientific Methodology, with special reference to Electron Theory.' [Illustrates the nature of scientific methodology by showing how certain recent developments of electron theory may affect the logical structure of important departments of physical science, *e.g.*, quantum theory.] **John Anderson.** 'The Knower and the Known.' [Mr. Anderson regards realism as simply an application of the logic of relations to the case of knowledge, relations themselves being taken as external. "Arguing then, as realists, that no thing or quality of a thing is constituted by the thing's relations, we have to assert that nothing is constituted by knowing and nothing by being known" (p. 64). This view is worked out by criticism, *e.g.*, of Berkeley and Descartes, and even "so realistic a thinker as Prof. Alexander" is found guilty of occasional backsliding. Unfortunately Mr. Anderson makes no attempt to put himself at the point of view of the thinker he is criticising, and this makes his criticism unconvincing. Moreover, without a fuller statement of his own doctrine of relations and of mind, it is often difficult to be sure of the

precise meaning and implications of his argument. *E.g.*, when we read that "as regards my knowledge of myself, this will have to be accounted for by saying that a certain process in my mind knows another," we may ask, how can a *process* be said to know anything?—but the brief explanation that follows only raises new difficulties.] **J. H. Harley.** 'The Development of Social Minds.' [Discusses, first, the extent to which the mind of each person acts under the guidance of socially developed ideas and institutions—"the common world of artifacts"—and, second, the various "social minds" which are developed by social groups.] **H. H. Price.** 'Mill's View of the External World.' [Aims at giving an account of the external world on the lines of Mill, but one which will make good certain omissions in his theory. Mill gave no account of what a Thing is, and no adequate account of the spatial and temporal relations between things.] **A. Wolf.** 'Spinoza's Conception of the Attributes of Substance.' [A protest against misinterpretations of Spinoza, especially in regard to the following two matters. (1) The logico-mathematical interpretation of the Attributes. Prof. Wolf thinks that "what Spinoza means by Extension is really what may be called Physical Energy," and that in so conceiving Extension he shows his superiority to Descartes. (2) When Spinoza predicated "infinite Attributes" of God, he "did not posit innumerable attributes at all. He only knew of two Attributes, and as a cautious thinker, he had, of course, to allow for the possibility of other Attributes unknown to man" (p. 190). But if it is allowed that there may be more than the two known Attributes, the familiar difficulties about the attribute of Thought would seem to remain as before.] **J. Macmurray.** 'The Function of Experiment in Knowledge.' [Science is equally distrustful of thinking divorced from observation of fact and of observation of fact divorced from thinking; it is essentially sceptical or critical, and its instrument is experiment. It cannot give certainty or positive proof, but it can give a continuously developing body of theory, from which false beliefs are being eliminated. The paper seems to accentuate the negative aspect of scientific method unduly.] **Gerald Cator, C. E. M. Joad, H. J. Paton.** Symposium: 'Error'. [Mr. Cator and Mr. Paton are agreed, as the latter says, in recognising "that the real is a systematic whole, and that truth belongs to propositions in so far as they contribute to a systematic understanding of the universe," but Mr. Cator would explain error by developing this view in a pragmatist direction. "Even though 'all roads lead to Rome' it does not follow that all roads are equally practicable. . . . The propositions which mark the entrances into impracticable roads are errors" (pp. 216-217). Mr. Joad rejects the absolutist doctrine of truth entirely. His own view is that judgment, whether true or false, is always an immediate awareness of existing objects of thought; but some of these objects of thought have physical counterparts, for they are also objects of sense, while others have not; in the former case, the judgment is true, in the latter, false. Mr. Paton's paper exposes the weaknesses of this view.] **Ivy Mackenzie.** 'Sensation and Attention.' [By one of the least excusable of the misprints in the volume the title of this paper appears in every page heading but one as 'Sensation and Attraction.' The writer holds that we are far too ready to attribute consciousness to animals and do not make nearly enough allowance for the complicated and subtle reactions of which the organism itself is capable. The thesis of the paper is stated as follows: "There is no sensation without consciousness, there is no consciousness without voluntary attention, and the capacity for voluntary attention has emerged with the human fellowship" (p. 253). This contention, admitted to be provocative, is argued out at length with reference to examples of organic reaction, of animal behaviour at various levels, and of human experience.] **H. D. Oakeley.** 'The World as

Memory and as History.' ["Memory, considered as the fundamental activity of finite mind, is partly conditioned by an 'other' as matter of event, the contact with which is the experience of present actuality. The bare event in present actuality is not yet historic, but undergoes, as it were, a process of development into history through the dialectic of mind as memory."] **M. C. D'Arcy.** 'The Claims of Common Sense.' [Considers that speculative philosophy should give much more weight than it usually does to "that body of knowledge which is more or less permanent, gained by man in contact with life through experience".] **F. Aveling.** 'Mental Association.' [Two types of recall are distinguished, one corresponding to the familiar principle of contiguity, the other substituting for the familiar principle of similarity a wider principle of conceptual relationship. The former type is regarded as a sensorial process in which parts of a sensorial whole recall each other by virtue of the physiological connexion of their physiological correlates. The other type, which involves an apprehension of relations and which may operate by way of creative suggestion as well as recall, is regarded as purely psychological and not susceptible of any physiological explanation. The writer admits, however, an "almost inextricable interpenetration of the two processes," and this would naturally lead one to question the dualism of principles both in its psychological and in its physiological aspect.] **W. G. de Burgh.** 'The Significance of the Argument from Design.' [Accepts Kant's contention that the argument from design requires to be supplemented by an ontological or *a priori* element, and argues that this element can be supplied if we take the ontological argument in a wide form as "an inference from the requirements of reason to the order of reality". The lines on which this view is worked out may be indicated by the following quotation: "We are impelled . . . to think of the purposiveness discernible within Nature in the light of a timeless purposiveness beyond Nature; and this in turn as the purpose of an eternal mind, which is possessed 'in an eminent way' of the qualities revealed to us in the richest of our purposive experiences" (p. 384).]

ARISTOTELIAN SOCIETY, SUPPLEMENTARY VOLUME VII, 1927: *Mind, Objectivity and Fact.* **B. Edgell.** 'The Structure of Mind.' [Starts with a contrast between the explanations of perceptual pattern offered by the Gestalt psychology of the recent German school and the functional psychology of Head and Parsons, and then suggests that the work of the latter writers affords a basis for a reconstruction of structural psychology in which structures will be interpreted as organisations of functions rather than as complexes of elements. The term function is defined, in connexion with 'psychical event,' as the 'meaning' of a referential event or cognition, and structure is held not to be made up of events but of functions. It seems difficult to understand how such a view of structure and function works out.] **H. Wildon Carr, A. A. Bowman, J. A. Smith.** Symposium: 'The Nature of "Objective Mind".' [In spite of the title and of the references to Hegel made in the first and third papers the symposium becomes in the main a discussion of monadism. Prof. Wildon Carr thinks that the adoption of monadism would have greatly improved Hegel's philosophy of Nature and would have enabled him to do more justice to individuality in his philosophy generally. Prof. Bowman's paper is primarily a criticism of monadism, but he also indicates the way in which he would deal with the knowledge of physical things on non-monadistic lines. Prof. Smith agrees in rejecting monadism and adds some general criticism of Prof. Wildon Carr's views about Hegel.] **G. Dawes Hicks, G. F. Stout, G. C. Field.** Symposium: 'The Nature of Introspection.' [Each of the papers in this symposium is very interesting in itself, and yet the discussion as a whole is not altogether satisfactory, mainly perhaps for lack of any representa-

tive of the thoroughly critical or sceptical attitude. The first two contributors assume introspection to be an unquestionable fact, and seek to dispose of the familiar difficulties involved in it by explanations which are themselves by no means free from difficulty. Prof. Field freely admits the difficulties involved in the introspection of particular classes of mental facts and has no great belief in introspection as a method, yet remains convinced by the general arguments of the previous writers. Prof. Stout has a short supplementary paper on some points discussed by Prof. Field.] **F. C. S. Schiller, A. C. Ewing, W. F. R. Hardie.** Symposium: 'The Problem of Meaning.' [An admirable symposium, in which a definite issue is before us and each writer helps to advance the discussion of their common subject. The debate turns upon two contentions of Dr. Schiller, (1) that what he calls 'personal meaning,' i.e., the meaning which words have for the speaker or user, is more fundamental than verbal or dictionary meaning, (2) that a reform of logic is needed which will do justice to this more fundamental character of personal meaning. Mr. Ewing points out that the so-called verbal meaning of words is determined not only by the dictionary meaning but also by the context in which they are used, and that in any case personal meanings are communicated in the main through verbal meanings; but he is willing to allow that, within limits, there may be variation in the personal fringes, so to speak, which the common meanings have in the minds of different persons, and he expresses this concession rather unhappily by saying that logic deals with classes of meanings. Mr. Hardie is in general agreement with this argument and strengthens it by urging that the alleged vagueness and ambiguity of the verbal meaning are to be remedied always by further specification of the object, and not by taking into account such elements in the personal fringe as are of a merely subjective or irrelevant kind.] **J. Laird, H. D. Oakeley, A. D. Lindsay.** Symposium: 'The Mutual Relations between Ethics and Theology.' [Prof. Laird proposes to discuss five alternative senses in which religion or theology may be held to complete ethics. Four of these are dismissed in the space of 3 pp. Under the fifth head 3 pp. are devoted to a criticism of a statement of Bosanquet's, but the criticism is far from doing justice to Bosanquet's meaning. Miss Oakeley's general contention is that "the assumed division between the religious and the ethical principles and methods in their own nature is not in the end tenable" and that "our vision of good is indissolubly bound up with our conception of the ultimate nature of things"; and she criticises the first paper from this point of view. The Master of Balliol, while agreeing with this criticism, also points out that Prof. Laird has prejudiced the whole question by speaking as if religion and theology were the same thing. Starting afresh, he illustrates the relation of theology to ethics by comparing St. Paul's teaching about law and grace with Kant's ethical doctrine, and concludes that the real question is, how far goodness implies something of the nature of St. Paul's 'faith' as distinguished from mere insight.] **F. P. Ramsey, G. E. Moore.** Symposium: 'Facts and Propositions.' [Mr. Ramsey begins by arguing shortly in favour of "Mr. Russell's conclusion that a judgment has not one object but many, to which the mental factor" (i.e., belief or whatever else the factor may be) "is multiply related"; and then proceeds to a further analysis of judgment, in the course of which he maintains that we must recognise an ultimate difference between affirmation and negation, and seeks to show how complex and general propositions can be analysed in terms of atomic propositions. Prof. Moore criticises the analysis in a long paper which can hardly be summarised and is very difficult to follow. He is no doubt aiming at perfect clearness and precision, but his phraseology is at times so cumbersome and involved that he runs a serious risk of defeating his own aim.] **L. S. Stebbing, R. B.**

Braithwaite, D. M. Wrinch. Symposium: 'Is the "Fallacy of Simple Location" a Fallacy?' [In a careful opening paper Miss Stebbing tries to free what she takes to be the true purport of Whitehead's doctrine on the subject from some of the obscurity in which he himself has involved it. The main point is that although all actual location is relative, and the supposed absolute or simple location is an abstraction, yet this relativity does not make that which is relatively located in any way subjective or unreal. Mr. Braithwaite takes Whitehead's denial of simple location to be inconsistent with the doctrine of his earlier works. "The theory elaborately worked out in *The Principle's of Natural Knowledge* does give a perfectly definite meaning to a definite region of space and a definite region of time, provided that it is events and not objects that have this simple location." But he seems to allow that Miss Stebbing's account represents the trend of Whitehead's present teaching. The third contributor remarks that "simple location cannot properly be ascribed to events, if we can show that any statement about an event requires reference to the other parts of space-time"; but she contends that we cannot discuss the question further until we know the kind of space-time that is to be constructed out of events.]

JOURNAL OF PHILOSOPHY. xxiv [1927], 24. **D. M. Allan.** 'Personal Agency and the Humian Analysis.' [Urges against Hume's attack on the volitional theory of causal connexion that "if by causality we can only mean a deductive principle by which the details of experience can be magically deduced *a priori*, then indeed Hume is unanswerable, and, we may add, scientific investigation superfluous. But if causality be a principle of internal connexion empirically discovered in the dynamic flux of immediate experience and then inferable beyond the personal flux with the same degree of certainty as other empirical characters, the difficulty is robbed of much of its force." Hume's criticism fails to show (1) that cause and effect are disjointed separate factors in experience, (2) that in the mind-body relation we must either know it completely or know nothing at all, (3) that their connexion must be intelligible before our first experience of the effect or not at all, (4) that necessary connexion must be an external relation, and (5) that power means creation out of nothing.] **G. Boas.** 'Mr. Drake on Essences and Data.' [Cf. xxiv, 18 and 21. Continues his criticism of 'critical realism,' quotes from Drake a declaration that "the relation between the status of existence and the status of being-an-essence is impossible to define, I fear, perhaps impossible to understand," and urges that he is bound to define this difference, but is, apparently, quite unable to do so.] xxiv, 25. **M. R. Cohen.** 'Concepts and Twilight Zones.' [Undertakes to show that concepts are *not* generic mental images but (1) "signs, generally verbal, pointing to invariant relations or transformations in the natural world," (2) that "there are elements of indetermination in the denotation of concepts, regions in which opposite statements are equally true," (3) that "the relative extent of illumined focal region and twilight or penumbral zone varies with different concepts, and that the recognition of such variation provides important help in dealing with various logical and metaphysical problems, in the classification of intellectual temperaments, and in practical affairs." **R. B. Perry.** 'Reply to Professor Calkins.' [Cf. xxiv, 21. Explains that he is not a 'behaviourist' in J. B. Watson's sense.] xxiv, 26. **S. P. Lamprecht.** 'A Type of Religious Mysticism.' [Aims at characterising "a rather neglected type of mystical religious experience," viz., the sense of social participation in a mystic rite, such as the Australian *corrobbori*, which is more fundamental than the mystic trance which is only "a delayed response to the meanings and values of the corporate religious life." Such mystic rites are a great conservative force,

"rejuvenate men's lives" and are intrinsically enjoyable.] xxv [1928], 1. **D. S. Mackay.** 'On the Order of Plato's Writings.' [Suggests that the accepted order may not be chronological but may represent groupings into more elementary, and more advanced, works for the benefit of pupils, affirms 'the unity of Plato's thought,' rejects Joel's theory that 'Socrates' is merely a literary peg, and thinks that Plato's 'Socrates' was meant to be historical, though the subjects he discussed are not, and takes the 'dialectical dialogues' as "strictly intramural" and intended to meet difficulties raised about the Ideal Theory in the Platonic School itself.] **H. R. Smart.** 'The Problem of Induction.' [Suggests that Broad's and Russell's difficulties with Induction may be overcome by recognising that "truth is simply a quality possessed by ideas in so far as they serve to render experience coherent".] xxv, 2. **R. G. Tugwell.** 'Economics as the Science of Experience.' [Seeing that "the control of industry has become a problem of immediate importance to all men," economics is "the chief of the social sciences" and "the economist's heroic task is that of comprehending, and, in so far as he can, of aiding in the subjection of nature to man's will". So "economics, instead of a dismal science, will be seen ultimately to be the science of enlightenment and progress, of the organisation of man's experience in mastering nature".] **H. E. Cory.** 'The Concept of Expression in Æsthetic Theory, I.' [Discusses the expressionists and Croce and points out that the former, though they try to express their inner self through their art, are very much alive to the objectivity of the medium through which they express themselves, while for the latter "art is not a work of art" and "what common sense calls a work of art is a mere work of supererogation".] xxv, 3. **H. E. Cory.** 'The Concept of Expression in Æsthetic Theory, II.' [Deals with Santayana, who is said to make "the most orderly and illuminating use of the concept" but blamed for neglecting the case of music. 'Connotation' is then adopted as the equivalent of Santayana's 'expression,' and 'program-music' is shown to be all-pervasive. Finally the following is offered as a 'definition' of beauty: "an object is beautiful if it has form, contents and connotation which arouse in the contemplator imagination and a sentiment which centres in love and conations by virtue of which the contemplator tends to become like or to become one with the object and to manipulate its materials with a reverence for their unique qualities".] **F. L. Wells.** 'Psychogenic Factors in Emergentism and Allied Views.' [Declares that "we cannot logically eat the cake of determinism and have that of ethics. Practically of course we can and do, by those blessed processes of dissociation long popularised as logic-tight compartments," and that "ethical values are a psychological fact". Determinism however is taken as a metaphysic and not as an assumption of method, and Sir J. J. Thomson's dictum that a scientific theory is a policy and not a creed is ascribed to Titchener.] **G. A. de Laguna.** 'Linguistics and the Psychology of Speech.' [Expostulates with the reviewer of her book on *Speech* for misunderstanding and misrepresenting its aim.] **A. A. Cutler.** 'Professor Harry Norman Gardiner as Teacher and College Officer.' [An obituary of a victim of the automobile, who taught for over forty years at Smith College.]

REVUE NÉO-SCOLASTIQUE DE PHILOSOPHIE. xxviii^e Année. Deuxième Série. No. 16. Novembre, 1927. **L. Noël.** *La philosophie romantique.* [An article suggested by the approaching "centenary" of V. Hugo's famous preface to *Cromwell*. M. Noël traces back the ideas of "romanticism" through Ritter, Novalis, the Schlegels and Schelling, to their inspiration in Fichte. Fichte's *Ego* is essentially negative, the unattainable, unknowable; the "romanticists" aim at giving it a positive character. "Romanticism" is not necessarily evil; it only becomes so when it

"deifies and reinforces the tendencies which drag us down". I am puzzled by one historical assertion in this article. English literature had "for a considerable time" tended to an unwholesome exaltation of the individual and his passions. This apparently refers to 1794, the date when Fichte entered upon his chair at Jena. But of what British authors is M. Noël thinking? **R. Feys.** *Le raisonnement en termes de fait dans la logistique russellienne.* [The introduction to what promises to be a valuable study of the logical principles and methods of *Principia Mathematica*² and Wittgenstein's *Tractatus*. The part here printed deals with the views of R. and of W. about the structural character of enunciations of "fact" and the dependence of the primitive laws of logic on this structural character. Wittgenstein has revived "nominalism" and carried it to the extreme. The problem to which this article is preliminary is the question "is the abstract anything outside the fact and the symbol?"] **M. de Wulf.** *In Memoriam D. Nys.* **A. Mansion.** *La Genèse de l'œuvre d'Aristote d'après les travaux récents (concl.)* [Deals very carefully with the views of Jaeger on the composition of *Physics*, *de Caelo*, *Meteorologica*, *Ethics*, *Politics*, comparing them with those of P. Gohlke for the physical treatises and of von Arnim for *Ethics* and *Politics*.] **R. Kremer.** *Bulletin d'épistémologie.* **M. Haps.** *Culture générale et éducation féminine.* [From the opening address of the Lady Principal of the Ecole supérieure des jeunes filles, Brussels.] *Programme des cours de l'Institut de Philosophie.* Book reviews, etc.

RIVISTA DI FILOSOFIA NEO-SCOLASTICA. Anno xix, Fasc iv-v, Luglio-Ottobre, 1927. *L'insegnamento della filosofia nei licei.* [Marzorati and Contri continue the debate on the proper methods of teaching philosophy to the youth of Italy.] **Paolo Rotta.** *Il profilo del Cusano.* [A sketch of the life and philosophy of Nicholas of Cusa introduces Rotta's thesis that Cusa was—and knew that he was—one of the last champions—practical as well as theoretical—of the true Catholic Church of the Middle Ages. His 'Docta Ignorantia' is to be read as an attempt to defend Christianity from the impending Protestantism.] **Emilio Chiochetti.** *L'estetica di G. B. Vico.* [Gives a straightforward account of Vico's theories of history, art and language.] **Paolo Rossi.** *La teoria fisica di Pietro Duhem.* [States, with partial sympathy, the theory of Duhem that the function of physics is to provide not an explanation but a set of pure symbols for the objects given in experience: so that no proposition of physics either presupposes or is presupposed by any proposition of metaphysics.] **Mario Crenna.** *Isacco Newton e il suo contributo alla conoscenza dell'universo.* **Giuseppe Zamboni.** *L'elaborazione intellettuale dei dati sensibili secondo S. Tommaso e secondo Kant.* [Expounds and compares with some detail the theories of knowledge of S. Thomas and Kant, with special reference to the problems of the "categorical formation" and the "objectivization" of phenomena.] **Gustavo Bontadini.** *La posizione del problema teologico.* [Essays (by special permission) to re-formulate the theological problem in terms of the Absolute Idealism of Gentile.] **Francesco Olgiati.** *Il criterio distintivo nella storia della filosofia.* [Discusses the general principles followed by himself in his studies in the history of philosophy (especially the history of Neo-Scholasticism and the idealism of Berkeley), and defends the validity of his method and his judgments against the criticisms of Chiochetti and Croce.] **Reviews.** Anno xix, Fasc vi, Novembre-Dicembre, 1927. **Francesco Olgiati.** *Il metodo per ripensare le dottrine di Niccolò Macchiavelli.* [An opening article, from the Neo-Scholastic standpoint, on the life, times, character and doctrines of Macchiavelli, together with some not very novel reflections on the true method of studying the history of a philosophical

theory.] **Luigi Allevi.** *Francesco de Vittoria e il rinnovamento della Scolastica nel secolo XVI.* **Carlo Mazzantini.** *La realtà conosciuta e la realtà del conoscere.* ["The reality of knowing presupposes the reality of the things known—and not vice versa. . . . A thesis which seems to me to be indemonstrable by a direct process (ostensivé), but which I believe it to be very useful to support indirectly (deducendo ad impossibile)."] **Alfredo Goffredo.** *La storia nella filosofia di Benedetto Croce.* [A vigorous criticism of Croce's theory—or theories—of history, the confusions and inconsistencies of which are rooted (it is argued) in his basic theory of immanence.] **Francesco Olgiati.** *La Neo-Scolastica di fronte al problema teologico ed il metodo storico.* [Takes up Bruni's challenge to Neo-Scholasticism (in his "Riflessioni sulla Scolastica," Rome, 1927) and, after contrasting unfavourably the attitude of Gentile with that of Neo-Scholasticism towards theology and dogma, makes a general defence of the Neo-Scholastic position together with a general attack upon "immanentism" or "Actual" Idealism.] Discussions, reviews, notices and obituaries.

LOGOS. Anno x, Fasc iii, Luglio-Settembre, 1927. **C. Mineo.** *Il valore filosofico del Calcolo della probabilità.* [Discusses some of the scientific and philosophical problems in the theory of probability. Basing his arguments in the main on the work of Borel, he discusses the significance of the calculus of chances for our theories of natural law and human freedom.] **A. Aliotta.** *L'irrazionalismo contemporaneo, IV.—La filosofia dell'esperienza pura di R. Avenarius.* [Expounds the empirio-criticism of Avenarius and finds fault with the severance that A. makes between experience and thought, and his exclusion of the thinking subject.] **L. Bandini.** *Bene, virtù e "senso morale" nello Shaftesbury, II.* [Continues his exposition and criticism of S.'s moral theory.] **E. D. Carlo.** *Intorno ad alcuni scritti ignorati di Pasquale Galluppi.* [Bibliographical notes on the writings of Galluppi.] **A. Marucci.** *Il progresso e l'educazione della volontà.* [Discusses various ideas and theories of human progress, finds mere advance in science inadequate and demands a more masculine (and military) discipline of the will for the youth of Italy.] Reviews, notices, etc.

IX.—NOTES.

A NOTE ON FAMILIES INCLUDED IN THE FIELD OF A RELATION.

(1) Jones belongs to the *field* of the relation "is a parent of" if, and only if, there is some entity that is either a parent or a child of Jones. And the relation "is a child of" is the *converse* of the relation "is a parent of". So that, quite generally, if R is any assigned relation, we can classify entities according as it is true or false that they are related by R or the converse of R to at least one entity; those which do have R or the converse of R to at least one entity constitute a special class called 'the *field* of the relation R '.

(2) "The class δ is **included as a proper part** in the class β " is to be understood to mean " β is a class comprising at least one entity which is not comprised in δ , and every entity comprised in δ is also comprised in β ".

(3) "The class β is a **system** with respect to the relation R " is to be understood to mean " β is included in the field of R ; and, if δ is any class comprising one or more entities and included as a proper part in β , then some entity which is comprised in δ is related either by R or by the converse of R to some entity which is comprised in β but not in δ ."

(4) The relation R is said to be '*aliorelative*' when any given entity is other than each one of the entities it has R to. Now, if R is aliorelative, its field cannot comprise less than two entities (unless, of course, R has the null-class for its field—i.e. unless the proposition $(\exists x, y). xRy$ is false).

Suppose, then, that a and b are two entities, each comprised in the field of R . For the sake of completeness it may be worth while to enumerate a set of conditions necessary and sufficient for a to have to b the 'ancestral relation' with respect to R . The account given below follows the "Principia Mathematica" definition so closely that it would not be worth while considering it except in order to mark out a special point of view—namely a point of view which considers 'systems' without specifying a definite number of *dimensions* (so that *linear series* can afterwards be approached as a special case where the number of dimensions is unity). For technical purposes it is convenient to count b as one of its own "ancestors". Thus, writing " R " for "is a parent of," we can express " a is an ancestor of b " in the form " aR_*b ".

Then, in the first place, aR_*b is logically equivalent to $a = b \vee aR_{ho}b$. Secondly, $aR_{ho}b$ will be true if, and only if, it is true that:—

"There is some system, β say, with respect to R , which comprises both a and b , and which is such that, if δ is any system with respect to R which comprises a but not b , then at least one entity comprised in δ has R to some entity which is comprised in β but is not comprised in δ ."

Or, in symbols,

$$\beta \subset C'R :: \delta \neq \Lambda . \delta \neq \beta . \delta \subset \beta . \therefore \supset \delta . (\exists x, y) : x \in \delta . y \in (\beta - \delta) . xRy \vee yRx.$$

(5) " δ is a **subfamily** of β " is to be understood to mean "There is some relation, R say, with respect to which both δ and β are systems, and δ is included as a proper part in β ."

(6) " δ is a **family** included in the field of the relation R " is to be understood to mean " δ is a system with respect to R , and δ is not a subfamily of any system which is a system with respect to R ."

Obviously any given subfamily will be included in one, and only one, family. For example, all finite integers, including zero and the negative integers, form a family which is included in the field of the relation "differs by unity from". And all the finite integers which are greater than zero form a subfamily of this family.

J. A. CHADWICK.

"LOCKE AND CLARKE."

TO THE EDITOR OF "MIND".

SIR,

Although the eminent reviewer of my "Correspondence of Locke and Clarke" (*MIND*, Oct., '27) escapes the egregious mistake of Fox Bourne who regards Locke's mention in a letter to Thoynard written in France on 6 June, 1679 of "my book which is completed" as referring to his "Essay," yet I think it may fairly be said that he harbours a similar misconception to both this author and Fraser concerning the true relation of the philosopher to his great work during the period of his French sojourn. Fox Bourne describes Locke as at that time "investigating anew the problems of metaphysics with a view to most clearly setting forth his ripest opinions on the most important of them in his Essay concerning Human Understanding". Fraser accepting this assumption depicts Locke at Montpellier as "busied for months in revising and expanding materials which seem to have accumulated in the busy years of official life in London". Our reviewer marshals various extracts from the *Journal of Locke* when in France between 1675 and 1679, in support of the traditional view that the date of the origin of the "Enquiry" was 1672, and as militating against the acceptance of the newly found declaration by the philosopher himself that the "accidental discourse" and resolve "to examine Humane Understanding" occurred in 1680-81.

But one has only to read in full the articles as written by Locke in France from which the excerpts have been taken to perceive how remote he was from any systematic study of the limitation of our faculties between 1670 and 1675. If the grouping of them suggests that they were made in connexion with a problem that had been previously discussed, there is given thereby an entirely wrong impression of their setting. Never once does Locke intimate in them that there has been any previous occasion when he had set out to discover the nature and extent of our faculties. This he would naturally have done if the memorable meeting had already occurred. Furthermore these isolated expressions when taken in their context have such freshness and spontaneity as nowhere to indicate a previous enquiry. And had any group of persons pursued at an earlier date an investigation to see what objects their understandings were or were not fitted to deal with, Locke would have been much too far advanced in this research to have made the quoted remarks in such a purely incidental way. Thus the fortuitous character and the entire newness of Locke's scattered utterances on this problem as made in France combine to refute those who contend that the celebrated meeting took place in 1672.

Furthermore an investigation of the various metaphysical passages of

Locke's Journal in France make it clear that he was then primarily concerned with the boundaries of our knowledge and not with the extent of our intellectual abilities. It is the former problem which engages his attention when he discovers that "the essences of substantial things are beyond our ken" and that "things infinite are too large for our capacity". It is because of the difficulties in regard to the extent of our knowledge that he says "that our understanding boggles and knows not which way to turn". The passing glimpse he had concerning the weakness of our understanding is dismissed as belonging to the end of a man's study and not to be proposed "at his setting out". His language at this time not only affords no hint of a previous meeting in 1672 at which a search of our faculties was begun, but is likewise opposed to any assumption that between 1670 and 1675 he entered upon an enquiry as to the extent of our abilities "with a view" to the "Essay".

According to Tyrell such enquiry arose from a discussion of "the principles of morality and religion". And these were the very subjects upon which Locke was engaged in writing in 1680-81. Here then would be the first and only occasion on which might logically have arisen the necessity of an enquiry concerning the limitations of our faculties of which Locke could affirm that it became thereafter a subject of such continuous study as he bestowed upon it in Holland. Hence we perceive that much greater clarity and consistency are given to the entire growth of his great work by the acceptance of the later date as that in which he "resolved to examine Humane Understanding". If to this orderly and logical development of the "Essay" by Locke there be added the weight of his own declaration made in 1686 that it was five or six years since "the search of knowledge ever since has been in my thoughts," must we not regard the argument as well nigh conclusive that the famous meeting occurred not at Exeter House in 1672 but at Thanet House in 1680-81?

BENJAMIN RAND.

"WHY THE MIND HAS A BODY".

TO THE EDITOR OF "MIND".

DEAR SIR,

It is with much regret that I find myself obliged to refer to a personal matter, in connexion with an article with whose main thesis I so heartily agree as that of Prof. Morton Prince, "Why the Body has a Mind and the Survival of Consciousness after Death," in your January number. But he states in a footnote that the argument of my book, *Why the Mind has a Body* (1903), "was based on my [his] earlier book, *The Nature of Mind and Human Automatism* (1885)," and this is not the case.

I had not seen or heard of Dr. Prince's book at the time when mine was published, though he afterwards sent me a copy of it. I had, it is true, read an article of his in *Brain* in which the same view of the relation of mind and body was set forth, and I remember being struck by Dr. Prince's way of presenting it; but the theory itself is one with which I had been acquainted, and which I had been inclined to accept as true, ever since my student days under Paulsen in Berlin.

Paulsen owed the theory to Fechner, whose antithesis of the *Tagesansicht* and the *Nachtsansicht* of reality was an attempt to express it pictorially; Fechner may have been led to it by the suggestion of Kant, that the *Ding an sich* might be of the nature of mind (see the concluding Note to Clifford's essay, "On the Nature of Things in Themselves"); and

Kant, in making this suggestion, must have had in mind the view of Leibniz that material things are in their inner nature psychical. The theory thus has a long and not unrespectable ancestry.

Yours truly,

C. A. STRONG.

PSYCHOLOGICAL ABSTRACTS.

An international abstract journal published monthly in English by the American Psychological Association under the editorship of *Walter S. Hunter* and *R. R. Willoughby* of Clark University, Worcester, Massachusetts, U.S.A., with the co-operation of *F. C. Bartlett*, Cambridge, England; *Ed. Claparède*, Geneva; *G. C. Ferrari*, Bologna; *A. Michotte*, Louvain; *H. Piéron*, Sorbonne; *M. L. Reymert*, Wittenberg College; *W. Wirth*, Leipzig; and *P. Ranchburg*, Budapest.

Volume I, 1927, contained 2730 abstracts with a detailed subject and author index. These abstracts were of books and of the articles contained in 267 periodicals. Volume II will be enlarged. The classification of titles is as follows: General; Sensation and Perception; Feeling and Emotion; Attention, Memory and Thought; Nervous System; Motor Phenomena and Action; Plant and Animal Behaviour; Evolution and Heredity; Special Mental Conditions; Nervous and Mental Disorders; Social Functions of the Individual; Industrial and Personnel Problems; Childhood and Adolescence; Educational Psychology; Biometry and Statistics; Mental Tests.

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NINTH INTERNATIONAL CONGRESS OF PSYCHOLOGY.

The Ninth International Congress of Psychology will be held at Yale University in New Haven, Connecticut, U.S.A., probably in August or September, 1929.

The officers of the Congress are as follows: President, *J. McKeen Cattell* of New York; Vice-president, *James R. Angell* of Yale University; Secretary, *Edwin G. Boring* of Harvard University; Treasurer, *R. S. Woodworth* of Columbia University; Foreign Secretary, *Herbert S. Langfeld* of Princeton University; Executive Secretary, *Walter S. Hunter* of Clark University; Chairman of the Program Committee, *Raymond Dodge* of Yale University; Chairman of the Committee on Arrangements, *R. P. Angier* of Yale University.

Besides these men the National Committee includes: *J. E. Anderson*, University of Minnesota; *Madison Bentley*, University of Illinois; *E. A. Bott*, University of Toronto; *H. A. Carr*, University of Chicago; *Knight Dunlap*, Johns Hopkins University; *S. W. Fernberger*, University of Pennsylvania; *William McDougall*, Duke University; *W. B. Pillsbury*, University of Michigan; *C. E. Seashore*, University of Iowa; *L. M. Terman*, Stanford University; *E. L. Thorndike*, Columbia University; *H. C. Warren*, Princeton University; *M. F. Washburn*, Vassar College; *R. M. Yerkes*, Yale University.

This is the first meeting of the Congress in America. The previous meetings have been as follows: Paris, 1889; London, 1892; Munich, 1896; Paris, 1900; Rome, 1905; Geneva, 1909; Oxford, 1923; Groningen, 1926. It is expected that the Congress in the United States will be

truly international in character. The Americans hope that the appointment of some foreigners for lecturers and lectureships can be arranged near the time of the Congress, so that foreign attendance can be increased and international solidarity within psychology furthered still more. Most appointments of this kind at American universities would have to apply only to psychologists who speak English.

MIND ASSOCIATION: ANNUAL MEETING AND JOINT SESSION WITH THE ARISTOTELIAN SOCIETY.

THE Annual Meeting of the Mind Association will be held this year in Bristol at Clifton Hill House, the Hall of Residence for Women Students at the University of Bristol, on Friday, 13th July, at 5 p.m.

It will be followed by a **Joint Session with the Aristotelian Society**, for which the following arrangements have been made:—

FRIDAY, 13TH JULY.

8 p.m. Chairman: Prof. J. A. Smith.

Address by Prof. G. C. Field.

SATURDAY, 14TH JULY.

10 a.m. Chairman: Prof. Beatrice Edgell.

Symposium: "The Nature of the Self and of Self-consciousness". Prof. G. Dawes Hicks, Prof. J. Laird, Mr. A. Dorward.

2 p.m. Chairman: Prof. J. H. Muirhead.

Symposium: "Bosanquet's Account of the General Will". Mr. A. D. Lindsay, Prof. H. J. Laski.

8 p.m. Chairman: Prof. H. Wildon Carr.

Symposium: "Time and Change". Mr. J. MacMurray, Mr. R. B. Braithwaite, Dr. C. D. Broad

SUNDAY, 15TH JULY.

2 p.m. Chairman: Prof. G. E. Moore.

Symposium: "Is there a Moral End"? Prof. J. L. Stocks, Prof. W. G. De Burgh, Mr. W. D. Ross.

8 p.m. Chairman: Prof. T. P. Nunn.

Symposium: "Materialism in the Light of Modern Scientific Thought". Prof. L. J. Russell, Miss L. S. Stebbing, Prof. A. E. Heath.

Accommodation will be provided both for men and women at Clifton Hill House. The inclusive charge for board and lodging from Friday afternoon till Monday morning will be 35s. Members of the Joint Session not lodging at Clifton Hill House may have meals there at the following charges: Breakfast, 2s.; Lunch, 2s. 6d.; Tea, 9d.; Dinner 3s. 6d.

There will be a charge of 10s. as a Registration Fee for Membership of the Joint Session. The papers will be published by the Aristotelian Society in a Supplementary Volume, which will be sent free of charge to all who have paid the Registration Fee. It is hoped that it will be ready in time to be distributed before the opening of the Joint Session.

In order to facilitate the making of arrangements, it is earnestly requested that applications for membership and accommodation should be made as early as possible. Payment of the Registration Fee and of the charge for accommodation should accompany applications.

Applications and payments should be made to:—

Prof. G. C. Field,
The University, Bristol.